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April 11, 2006

Stephen L. Johnson, Administrator
U.S. Environmental Protection Agency
Mail Code 6102T
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460
Attention: Docket I.D. # EPA-HQ-OAR-2004-0018

Re: *Proposed Rule -- Revisions to Ambient Air Monitoring Regulations*

Dear Administrator Johnson:

The Northeast States for Coordinated Air Use Management (NESCAUM) offer the following comments on the U.S. Environmental Protection Agency's (EPA's) proposal, published on January 17, 2006 in the Federal Register, entitled *Revisions to Ambient Air Monitoring Regulations* (71 FR 2710-2808). NESCAUM is the regional association of air pollution control agencies representing Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

Network/Siting Design Changes for PM2.5 and Ozone

The NESCAUM states have several concerns with EPA's proposal regarding network and siting design. First, the proposed reduction in the number of ozone and fine particulate (PM2.5) sites in areas substantially above or near the proposed standard is inappropriate. These sites are critical to supporting states' air program activities such as mapping, forecasting, Air Quality Index (AQI) outreach, tracking progress, and epidemiological research. Assuming that EPA finalizes more health-protective National Ambient Air Quality Standards (NAAQS), more areas will monitor values near the daily PM2.5 NAAQS, requiring more PM monitoring and more frequent collocation of continuous methods with filter-based methods.

Second, we question the necessity of the proposed changes in road setback requirements for ozone monitors. We don't believe this proposed change is essential from a data quality perspective. It may be unduly resource intensive and burdensome to implement, as it could require the complete relocation of existing sites.

Third, we support EPA's proposal to allow one-in-three-day manual method sampling schedules for determining the daily NAAQS PM2.5 design values, and we request that EPA change the PM-coarse sampling schedule from daily to one-in-three-day. We see no reason to support different sample schedule requirements for the two daily PM NAAQS. Both of these standards are based on three years of monitoring data. Third-day sampling would yield 365 sample days, which are sufficient to determine the 98th percentile value with reasonable certainty. A one-in-three-day schedule for PM-coarse would allow more manual filter-based sampling, which is more accurate in the context of compliance with the PM NAAQS than continuous methods. Furthermore, areas may need filter methods if they monitor values close to the NAAQS using continuous methods.

It concerns us, however, that EPA's current method for calculating daily PM design values for both size fractions produces a lower (i.e., less stringent) value on average for a one-in-three-day frequency sample

data-set compared to a daily sample data-set. We therefore recommend that EPA develop a more robust but equivalent statistical approach to calculating the daily PM design values when it finalizes its proposed revisions to 40 CFR Part 50. While we need the ability to run one-in-three-day manual PM sampling, we do not want it to effectively result in weaker PM daily standards.

Federal Equivalent Method (2.5 and coarse) and Approved Regional Method Performance

The Federal Equivalent Method (FEM) performance requirements for PM2.5 and PM-coarse must match the Federal Reference Method (FRM) much more closely than proposed to ensure useful data quality at levels below the NAAQS. EPA should not relax the FEM requirement in order to ensure that some continuous methods get FEM approval at the expense of useful data quality.

EPA's proposal regarding the Approved Regional Methods (ARM) program concerns us. Depending on the characteristics of the region combined with the ARM technologies, data quality issues could arise. For example, the sub-daily data may be of degraded quality. Thus, this program should be limited and require ongoing FRM collocation. In addition, it may be difficult to define a "region," which could range from a domain a few miles in radius (an urban area) to a multi-state area.

We are concerned about where and when FEM testing will be done. For PM2.5, the sites chosen should be "tough," with complex mixtures of semi-volatile aerosols, rather than sites dominated by stable aerosols. For PM-coarse, sites with a wide range of PM2.5 to PM-coarse ratios must be included. Large ratios in either direction would provide the most rigorous method test.

PM-coarse Siting Exemptions

We do not support EPA's proposed siting criteria for monitors. The lack of monitors in non-urban areas would effectively result in there being no PM-coarse or PM10 standards in those areas. Available scientific data do not justify limiting PM-coarse or PM10 standards to urban areas with the possibility of exempting source categories. Moreover, the demarcation of an urban area for these purposes would be subject to considerable interpretation. Collecting ambient exposure data in non-urban areas is essential so that research on the health effects of those exposures can continue to be conducted. A prudent national public health policy includes concerns for those Americans living in non-urban areas. A standard setting approach that is not national in scope undermines the intent and purpose of the Clean Air Act, which mandates the protection of the entire nation's ambient air quality. At a minimum, EPA should retain the PM_{10} standards until these issues are resolved.

Funding

The National Ambient Air Monitoring Strategy (NAAMS), which this proposed rule implements, originally assumed flat funding with savings from State and Territorial Air Grants (STAG) program reductions in one area being used to fund new STAG monitoring activities in other program areas. This approach has not worked well. Under this proposal, it is unclear if states will be able to fund the operation of important but non-NAAQS monitoring activities (e.g., speciation, Photochemical Assessment Monitoring Stations Network, toxics) at meaningful operational levels. Many activities that traditionally did not come out of STAG funds (e.g., external quality assurance activities such as through the probe audits) would now be "taken off the top," resulting in even less funding for state and local agency monitoring programs. In addition, EPA is expanding some non-STAG air programs with less

ability and expertise, such as the Clean Air Status and Trends Network (CASTNET), at the expense of STAG program funding. EPA's attempt to integrate CASTNET into the NAAMS as part of the rural National Core Monitoring Network (NCore) site plan is problematic. CASTNET is a dry deposition trends network with no aerosol sample size cut point and limited quality assurance requirements relative to what is required for state and local air agency monitoring programs.

Attached are detailed comments on EPA's proposal. If you or your staff has any questions regarding the issues raised in this letter, please contact George Allen at the NESCAUM office at 617-259-2035.

Sincerely,

Arthur N. Marin
Executive Director

Attachment

Cc: NESCAUM Directors
Tom Curran, U.S. EPA
Lewis Weinstock, U.S. EPA
Tim Hanley, U.S. EPA

ATTACHMENT A
NESCAUM's Detailed Comments on the U.S. Environmental Protection Agency's (EPA's) Proposed Revisions to Ambient Air Monitoring Regulations (71 FR 2710-2808)

I. PREAMBLE

Clarifications and Possible Typographical Errors

71 FR 2715: EPA states that it will work to determine "what affordable monitoring activities above minimum requirements...would best meet .... the diverse needs of other data users". Without more details, we cannot provide meaningful comment. Can EPA identify the "other" users to which it refers?

Funding and State/Federal Responsibilities

71 FR 2712: We disagree with EPA's suggestion that the new monitoring requirements will improve its and monitoring agencies' ability to manage available funds. EPA proposes many new requirements that would make it difficult to reduce so-called low value monitoring in order to fund the new and costly monitoring required under the National Core Monitoring Network (NCore).

71 FR 2713: EPA proposes to eliminate the National Air Monitoring Stations (NAMS) terminology and make the State and Local Air Monitoring Stations (SLAMS) sites the backbone of the national, federally prioritized monitoring program.[1] We disagree with this approach, as it provides states with little flexibility or resources to design a monitoring program that addresses state-specific concerns.

71 FR 2713: In the proposal, EPA includes what was previously referred to as NCore Level 1 Research Grade monitoring sites in the general label of NCore without specifying how these measurements would be funded, who would make the measurements, or who would decide what research was necessary. This concerns us because of the potential for State and Local Air Grants (STAG) monitoring funds to be redirected for other purposes. EPA must clarify these program specifics, including anticipated funding sources.

71 FR 2713: We consider unfair EPA's statement that NCore sites are useful for developing control strategies because states will have to close many STN sites to fund the NCore sites and EPA did not ask the states about what data they needed to develop their control strategies. The NCore program is a one-size-fits-all program that is not flexible enough to provide states with the data needed to address pollutants specific to a non-attainment area. Urban NCore sites should be viewed as multi-pollutant mini-supersites, designed to provide data to allow assessment of health effects and for modeling and trends assessments, as recommended by the Clean Air Act Advisory Committee and National Academy of

[1] Monitoring sites were generally categorized as being NAMS (National/Federal Priority Sites) or SLAMS (State Priority Sites). The NAMS sites were part of several national monitoring programs designed to determine compliance with NAAQS, measure ozone, precursors, and toxics. The SLAMS sites were operated according to state needs, e.g., determining source impacts, evaluating control strategies, and investigating potential pollutant hotspots. SLAMS sites have also been used to determine compliance with NAAQS.

Sciences. The sites cannot be used as the basis to provide complete geographical coverage for attainment determination purposes.

71 FR 2713: We disagree with EPA's proposed reductions in the monitoring programs for the primary pollutants SO_2, CO, NO_2, Pb, and PM10. States have often used criteria pollutant monitors to ensure that sources are complying with regulations regarding pollutant emissions. Eliminating these monitors in such a drastic fashion because they report low concentrations would take away an incentive for sources to continue complying, and could lead to more releases of these pollutants from some source categories.

71 FR 2714: We disagree with EPA's proposal to allow Regional Administrators to approve network changes. The consistency of the National Federal Reference Method (FRM) programs as evidenced by implementing the 1997 PM2.5 standard shows that national network guidance provides a better, more useful dataset.

The proposed five-year reviews are burdensome and overlap with currently required annual meetings and EPA's five-year review and audit schedule. The EPA should provide funding resources and encourage regional meetings where state and local air monitoring staff could meet with data users to discuss future data needs and the impact of network changes.

71 FR 2716: The funding for IMPROVE has never been "in partnership" with states. Much of the funding for IMPROVE monitoring comes from STAG funds without the concurrence of state organizations. The recent 50% reduction in state-directed $PM_{2.5}$ speciation funding needs to be revisited in light of the lack of similar reductions in the IMPROVE program.

Field Blank Data

71 FR 2714: EPA's proposal to include field blank data (and drop other "meta" data) has merit and should be implemented.

Siting Issues

71 FR 2714: In the proposal, EPA directs readers to "section IV. F" for details on increasing the distance between roadways and ozone monitors listed in 40 CFR Part 58, Appendix E, but there are no details -- only a note that "Summary information on this work is included in the docket." NESCAUM found one document in the docket regarding a one-week study at three sites with some siting information and graphs, but it did not include any data. The NESCAUM states urge EPA not to make any changes on distance between roadways and monitors, given that there is only a single study and no published supporting data. We encourage EPA to use peer-reviewed information to support any changes to technical requirements.

Clean Air Status and Trends Network (CASTNET)

71 FR 2716: The technology behind the planned upgrade of CASTNET sites has not been described accurately, is unproven, and is inconsistent with the data needs of state monitoring programs. Historically, the CASTNET program has been inadequate in terms of quality assurance, siting and data availability. The planned enhancements to CASTNET have failed their initial deployment tests. For these reasons, the CASTNET program cannot be integrated with the SLAMS or NCore programs and cannot be financed with STAG funds. The CASTNET program must be prevented from directly competing against the states for dwindling STAG resources. We request that EPA allow states the option

to take over the operation of the CASTNET sites, with funding from the Clean Air Markets Division, not STAG funds.

The management change of CASTNET (it was moved from the Office of Air Quality Programs and Standards to the Office of Atmospheric Programs, Clean Air Markets Division) creates credibility issues for its program results, since the goals of the Clean Air Markets Division are specific to determining the accountability of the pollution credits trading programs. These goals are not inclusive of other state monitoring needs such as determining the transported components of PM2.5 carbon fractions.

71 FR 2716: While EPA indicates that ambient air quality data provide accountability by tracking long-term trends, the planned reductions in criteria monitoring will hamper this effort. EPA must address the implications of its planned reductions.

71 FR 2716: EPA proposes to outfit "about 20 CASTNET sites... [with] capabilities at least equivalent to the capabilities...for NCore." Would this include aerosol carbon measurements, and PM2.5 inlet size cuts on all aerosol measurements? Is it EPA's intent to require such CASTNET sites to adhere to the quality assurance and data reporting requirements envisioned for NCore sites? If so, then those requirements should be explicitly stated.

71 FR 2717: EPA states that the CASTNET program provides "the Nation's primary source for rural, ground level ozone." We disagree. CASTNET's ozone data are inadequate from a quality assurance standpoint to be used in comparisons with state monitoring program ozone data. EPA attempted to use these data in New York's Hudson Valley to determine that the area was out of attainment for ozone, and after a long investigation, EPA was forced to withdraw the data from consideration. CASTNET claims that these data are valuable for trends analysis, but if the data are not quality-assured and consistent from year to year then this data-set has no value.

Proposed PM Exemptions

71 FR 2718: We can find no justification for eliminating the agriculture and mining sectors from a health-based mass standard. It is likely that mines engaged in processing metal ores or farms that spray and till pesticides are emitting PM-coarse that is potentially more toxic to human health than PM-coarse from urban traffic or construction. In addition, these rural emitters of PM-coarse are likely to produce highly localized and concentrated plumes of PM-coarse. This is due to how farms and mines operate in contrast to the sources of PM-coarse in urban areas, where sources are small and numerous and result in PM-coarse concentrations that are more uniform and dilute. These exemptions are in direct contrast to the reasons EPA gives for using Special Purpose Monitoring data for designations.

71 FR 2718: We do not agree with EPA's proposal to immediately revoke the annual PM10 standard nationwide while leaving the daily PM10 standard in 20 locations. The existing PM10 annual standard provides a level of protection for the population living in rural and small municipalities. EPA's proposed PM-coarse standards, which will replace the existing PM10 standards, will not provide adequate coverage for these people.

71 FR 2718: If EPA revokes the annual and 24-hour (except for 20 areas) PM10 standards, what will happen to states and tribes that are currently operating under PM10 "Maintenance" plans? How long will those areas be required to monitor PM10? EPA should clarify its intent and allow time for public review and comment.

At a minimum, we urge EPA to retain the PM10 standards until all of these issues are resolved.

Monitoring Methods

71 FR 2720: EPA needs to clarify its statement that "Only designated or equivalent methods may be used in the State's air surveillance monitoring networks" for National Ambient Air Quality Standards (NAAQS) pollutants. We agree that the commercial trace gas analyzers that would be deployed under these regulations must be FRMs or Federal Equivalent Method (FEMs). Many states, however, operate instruments that surpass the types of instruments that are designated, are better suited for a particular area than the designated instruments, or are prototypes of new improved instruments. States need the flexibility and funding to operate non-designated instruments at SLAMS sites when compliance with a NAAQS is not an issue. In addition, it appears that this proposed requirement would appear to exclude the Approved Regional Methods (ARMs). Is that EPA's intent?

71 FR 2722: We disagree with EPA's proposal regarding seasonal and geographical comparison tests for Class III equivalence testing. These tests are inadequate particularly since the winter and summer biases between filter-based FRMs and continuous methods are often opposite and tend to balance each other. This makes the overall data comparison appear better than the actual day-to-day comparison. This is critically important, considering that Class III methods can be compared to the daily PM2.5 and PM-coarse standards. The proposed form of the standards (98^{th} percentile) makes the bias between methods even more important, since the designations rely on just three high concentration days.

Regarding the use of three sites in the U.S. to test Class III methods, the proposal to limit testing to only one site during the winter is inadequate. It appears that EPA is concerned only with low temperatures during the winter when, in fact, large differences in aerosol composition have been noted between West- and East-coast sites during winter and summer. The test sites chosen (and three seem to be sufficient) should operate during all seasons.

Continuous measurement methods that are found to be unacceptable in some regions in some seasons may still be useful for public reporting purposes such as AIRNow and mapping. These uses of the data permit data adjustments that can make the data from biased continuous instruments more similar to data from FRMs.

FEMs for PM Monitoring

71 FR 2723: It would be very restrictive if EPA enacted a one-hour precision standard for Class III FEMs. Due to the manner in which some of these instruments handle water and other semi-volatiles (first by measuring their mass and later volatilizing a portion of the mass and measuring the difference), a longer averaging time is required to accurately compare these techniques. Nevertheless, there is value in establishing accuracy goals for data periods shorter than 24 hours. Comparisons based on a rolling center hour averaged over three- to five-hour periods can provide comparison statistics that are applicable to how the data are used to make air quality forecasts and generate real-time public Air Quality Index (AQI) maps.

71 FR 2723: EPA's statement that the PM2.5 FRM samplers generally operate on a one-day-in-six schedule is incorrect. These samplers are normally required to operate on a one-day-in-three schedule. If the statistical analysis used to determine the accuracy of Class III equivalency used an inaccurate FRM frequency, then these calculations must be re-examined.

71 FR 2724: The Class II equivalency tests are not adequate, particularly in light of intended speciation analysis of the resulting samples. The seasonal and geographical differences in the concentrations of individual species of PM-coarse are likely to be greater than that for the overall mass. Given the costs associated with method testing, adding enough testing to ensure that the PM2.5 and PM10 methods are adequate in every area of the country in every season is not possible. It would be preferable to use an approach where Class II designated methods are required to be evaluated against collocated FRMs at least at one site in each monitoring organization. The data comparisons would be ongoing and would include mass and limited speciation to ensure that the Class II method produces data that meet the Data Quality Objectives (DQOs).

71 FR 2724: We agree with EPA that use of a correlation variable tied to the "concentration coefficient of variation (CCV)" should be adopted.

71 FR 2724: EPA proposes the use of only two sites for Class II method approval (PM2.5 and PM10-2.5). If site selection is made with the concurrence of the STAPPA/ALAPCO Monitoring Committee, then this would be acceptable. The proposed limitation of testing in only one season of the year (rather than the two-season requirement for Class III methods) is not acceptable. Seasonal variation is a powerful variable and should not be overlooked simply to reduce the cost of testing. Lowering the minimum concentrations allowed during Class II comparisons is appropriate, given experience to date with other methods testing programs.

Quality Assurance (QA)

71 FR 2725: We support combining Appendices A and B into one Appendix.

71 FR 2725: We endorse incorporating key elements of EPA Order 5360.1 A2 into the Part 53 regulations. This includes Quality Management Plans (QMPs), Quality Assurance Project Plans (QAPPs), and designated QA managers.

71 FR 2725: We support the proposed requirement that each state or delegated monitoring agency identify and maintain a "QA management function" (a QA manager). The proposal acknowledges the challenges that local, tribal and some small state agencies would have in meeting something more prescriptive, yet provides them with some flexibility in meeting this important QA activity.

71 FR 2725: We endorse the approach of developing and determining the performance requirements of a pollutant monitoring system based on the DQO process. If EPA wants this to be done at the state level however, then additional funding for this very technical work needs to be provided.

71 FR 2726: If an organization uses an FRM and an FEM in a network, do both instruments require Performance Evaluation Program (PEP) audits? The FEM would be compared to the FRM, so this comparison should suffice for an FEM audit. An example of this would be a state that uses FRMs at sites on a one-in-three-day schedule and a sequential FEM at daily sites that would need additional unnecessary auditing.

71 FR 2726 and 71 FR 2728: We support reducing the collocated sampling frequency from every six days to every 12 days for all of the specified PM-indicators. The proposed changes in QA requirements for collocated sample frequency (from every sixth to every twelfth day), the reduction in minimum concentration during audits (from 6 $\mu g/m^3$ to 3 $\mu g/m^3$) and PEP sampling frequency (from 25% of sites to 5-8 audits/year) are concepts that have been validated by historical performance and empirical data that

we support. We also support lowering the acceptable concentration limits applicable for collocated pairs from 6 $\mu g/m^3$ to 3 $\mu g/m^3$ for PM2.5 and from 20 $\mu g/m^3$ to 15 $\mu g/m^3$ for PM10 for generating precision data.

71 FR 2726: We support reducing the minimum number of performance evaluations required of all primary QA organizations to assess bias from the current uniform 25% of monitors in its network to: (1) five valid audits per year if the organization has five or less sites, and (2) eight valid audits per year if there are more than five sites.

71 FR 2726: We seek clarification on the proposed requirement that each method designation must receive a PEP audit. Does this mean if an organization had five sites and used R&P Model 2000 samplers at three of them and R&P Model 2025 samplers at the other two, would they be required to conduct five valid audits per year for each type of sampler (i.e., 10 total audits for the year)? We seek clarification as to whether or not an organization that uses a FRM and a FEM in its network would require PEP audits for both instruments. Because the FEM would already be compared to the FRM, it may be that the FRM PEP audit should suffice. An example of this would be when an organization uses a FRM at sites having an every third-day sampling frequency and a sequential FEM at sites with a daily sampling frequency, the additional FEM auditing would be unnecessary. As EPA is proposing to shift these costs to the states, then the states should be able to decide what level of independent auditing would be sufficient.

Monitoring Organizations Conducting their Own Performance Evaluation Audits

71 FR 2726: Conceptually, we support the option, and the flexibility provided, for monitoring organizations to be able to conduct their own performance evaluation audits. As noted in the proposal, this is not currently practiced by most organizations. We have serious concerns, however, about the resulting costs that agencies would incur as a result of trying to meet the proposed requirements. We need guidance that would clarify if agencies are solely responsible for ensuring these audits take place, as well as for providing the entire funding necessary to implement them. One concern is the significant shift the proposal represents in the way these audits are to be funded. It appears to completely eliminate previous EPA section 103 grants as a funding source, and requires the state, local, and tribal agencies to assume the entire cost using section 105 grant funds or other funding sources. We maintain that it should remain the responsibility of EPA to provide the means for measuring and assessing the quality and comparability of air quality data at the national level, which in part these audits do. Another concern is the anticipated higher costs to the agencies should they need or choose to meet this requirement by participating in EPA's National Performance Assessment Program (NPAP) or the PM2.5 PEP.

To ensure that monitoring organizations can meaningfully implement important national QA activities, we urge EPA to provide an option whereby monitoring organizations could solicit performance evaluation audits conducted by staff from their own EPA Regional Offices. We anticipate the costs to be significantly less expensive than those projected to be associated with the NPAP and PM PEP programs. Estimates of $2500 per audit have been made for this effort by EPA.

Definition of the Term "adequate independent"

71 FR 2726: We are concerned about how EPA will define the term "adequate independent" in the to-be-developed guidance for conducting performance evaluations of monitoring systems. Based on recent conversations with EPA's QA group, we understand that EPA may base the definition on the current one from the PEP Implementation Plan, which states in part:

> "…an assessment performed by a qualified individual, group, or organization that is not part of the organization directly performing and accountable for the work being assessed. This auditing organization must not be involved with the generation of the routine ambient air monitoring data. An organization can conduct the FRM Performance Evaluation if it can meet the above definition and has a management structure that, at a minimum, will allow for the separation of its routine sampling personnel from its auditing personnel by two levels of management, as illustrated in Figure 1. In addition, the pre and post sample weighing of audit filters must be performed by separate laboratory facility using separate laboratory equipment. Field and laboratory personnel would be required to meet the FRM Performance Audit field and laboratory training and certification requirements. The State and local organizations are also asked to consider participating in the centralized field and laboratory standards certification process…"

If this is the case, then small state, local, and tribal agencies will find it difficult to meet that definition, given their existing organizational structures and shrinking financial resources. Few, if any, of these agencies have independent in-house labs or laboratory services contracts that would allow them to achieve this aspect of the definition.

Operating the Performance Evaluation Program

71 FR 2727: We agree with the EPA's proposal that states can operate their own PEP program for the field portion of the audit as long as they demonstrate independence. Few states have independent labs or lab services contracts available for PEP audits. EPA should provide a contract mechanism for lab services for states that wish to do their own PEP audits but do not have an independent lab. EPA should maintain responsibility to provide a measure of the quality and comparability of air quality data at the national level. If, as proposed, EPA were to abdicate that responsibility by modifying 40 CFR, Part 58, Appendix A and require states and tribes to arrange and fund "adequate, independent performance evaluations," then, at a minimum, EPA should transfer the funds currently dedicated to the NPAP to its Regional offices in order to support the proposed additional QA requirements for the states and tribes. This would be necessary, since the states and tribes would be taking over the responsibilities of the NPAP.

71 FR 2727: We endorse the proposed changes to the statistics used for assessing precision and bias for the criteria pollutants as part of the DQO process, and agree they should be implemented. These include: standardizing the use of confidence intervals for all criteria pollutant data (aggregated at the monitoring site level for the gaseous pollutants and at the primary QA organization level for PM pollutants and lead), using common equations for automated and manual methods not only for the same pollutant but also for pollutant types (gaseous and PM), as well as the fuller integration of these statistics.

71 FR 2727: We support removing the manual method audits for SO_2 and NO_2.

71 FR 2727-8: We endorse the proposed expansion of the concentration ranges for the one-point quality control (QC) checks and annual audits to include lower concentrations for the gaseous criteria pollutants. We support requiring that the selection of the QC check gas concentration must reflect the routine concentrations normally measured at a site. It is not clear, however, how the appropriate range will be determined and who will be responsible for making sure these are consistent from one monitoring organization to another. Determining the representative concentration can be a difficult process because of the wide variation of pollutant concentrations that can occur at some sites. EPA will have to accept that a percentage of high concentration data may be lost when analyzers are operated at lower ranges for

better accuracy. For example, the ambient hourly NOx concentrations at the Queens NY monitoring site were above 200 ppb for approximately 1% of the time in 2004.

71 FR 2728: We support harmonizing for all PM pollutants the number of required sites for collocation.

71 FR 2728: We support reducing the frequency of the PM2.5 flow rate audits from quarterly to semiannually, and removing the alternative method to obtain the precision check from an analyzer's internal flow meter without the use of an external flow rate transfer standard.

71 FR 2729: The proposal to allow Acceptable Regional Methods (ARMs) should be expanded to permit non-linear data adjustment factors such as those that are used for some AIRNow data submissions. This is the only way that continuous monitoring can be expanded into geographical areas with significant seasonal bias due to the inherent weakness of the PM2.5 FRM.

71 FR 2730: EPA proposes to require states to maintain ozone and PM2.5 monitoring networks in areas with air quality problems. Preliminary analysis shows that in New York State there will be at least two additional non-attainment areas for PM2.5 due to the lower proposed daily standard. How will states fund the increased PM2.5 monitoring burden for these new non-attainment areas?

71FR 2730: EPA proposes that there will be at least one NCore site per state, and that PM-coarse would be measured at all NCore sites. The site map on page 2735 has no PM-coarse site in NH. Is this an omission or is it intentional?

71 FR 2731: We disagree with EPA's suggestion that CASTNET could replace a state-operated rural NCore or SLAMS monitoring site. The planned upgrade of CASTNET does not include all of the required measurements, such as PM2.5 size cut inlets, species of carbon, and quality assured criteria gases. CASTNET's monitoring objectives are not compatible with state monitoring programs. CASTNET is a dry deposition network, and as such does not use any size selective inlets on its samplers. It is an inappropriate tool to measure ambient air concentrations for NAAQS-oriented regulatory air programs or STAG programs that support those goals. Furthermore, CASTNET must not be funded with STAG funds.

71 FR 2732: The proposed requirement for daily sampling for the PM-coarse monitoring program is inconsistent with the requirement that PM2.5 monitoring be performed on a one-in-three-day sampling schedule. Since the same data quality objective process was used for both cases to justify the sampling frequency, how can the statistics only justify daily sampling for PM-coarse?

Use of PM10 in Lieu of PM-coarse Monitors

71 FR 2732: Although using PM10 monitors in lieu of PM10-2.5 monitors may produce some savings for a monitoring organization, EPA should not encourage the practice. Uniform methodology within a monitoring organization and between organizations is critical for improving our understanding of atmospheric processes and for creating long term trends. EPA should not allow the use of PM10 samplers in the coarse particle network. Should EPA opt to allow such a use, it should not occur for longer than three years. A specific exemption to this would be for low-volume PM10 samplers such as those used in the National Air Toxics Trends Stations (NATTS) program because their data are consistent with PM10-2.5 FRM data.

EPA usually makes regulations that apply equally to all regions of the country. In this particular case, however, EPA must make an exception that recognizes that PM is more heavily dominated by the fine fraction in the East and the coarse fraction in the West. Therefore, the criteria used to permit the use of a PM10 monitor in place of a PM-coarse FRM in the Western U.S. should be stricter than in the East, because it is likely that a higher percentage of the PM10 in the West is actually PM-coarse.

Minimum Metropolitan Statistical Area (MSA) Size Requirement

71 FR 2733: EPA requests comment on whether a minimum MSA size should be used in place of Table 1 (see 71 FR 2734). The condition that PM-coarse monitoring must be performed because of the size of an MSA is not scientifically valid. Existing datasets clearly show that many large cities in the East, including New York City, have very low PM-coarse concentrations relative to the proposed NAAQS. PM-coarse siting requirements should be based on high coarse-to-fine ratios. This would help eliminate costly, unnecessary monitoring at new sites for a short time period.

PM-coarse Network Design Criteria

71 FR 2733: EPA proposes that monitoring agencies collect three years of data prior to making reductions in the mandated PM-coarse monitoring network. We think a better approach would be to initiate PM-coarse sampling at the NCore sites for one to two years. Then, results from this initial deployment could be used to determine which MSAs would need an expanded PM-coarse network. This approach is more cost-effective than EPA's proposal, and would simplify the overly complex PM-coarse network design. It would also allow a more gradual roll-out of these new monitoring methods.

71 FR 2736: EPA requests comment on whether the proposed PM-coarse network design criteria are adequate in light of the higher number of monitors required in the East. EPA knows this network is inappropriately lopsided, in that high concentrations of PM-coarse are not a problem in the Eastern U.S. but are likely to be a problem in the West. The very basis of the proposed PM-coarse network design is flawed. PM-coarse concentrations are not correlated with MSA size and the network design should not be based on population. Making subtle changes to MSA boundaries will not correct the situation.

71 FR 2736: In the proposal, EPA states that the form of the PM-coarse standard is selected to be of equivalent stringency to the current 24-hour PM10 NAAQS. Because this statement is presented in the context of PM-coarse network design, presumably the network design criteria would recognize the historical PM10 dataset as a basis for where PM-coarse monitoring would be required. There are few areas of the country violating the PM10 daily standard and none in the Northeast. The maps at 71 FR 2735 show few cases where design values were calculated from historical data. The majority of the monitors on the map were located strictly based on population.

Boundaries for Population Block Groups

71 FR 2737: The boundaries for population block groups are arbitrary, even based on the relatively shorter transport distances associated with urban PM-coarse. These boundaries do not take into account the likelihood that a less populated area downwind of several highly populated areas may be exposed to higher PM-coarse concentrations than the areas of higher population. Although it is true that PM-coarse typically has shorter transport distances than PM2.5, PM-coarse can have a significant transport component.

PM-coarse Suitability Test

71 FR 2738: The fourth part of the PM-coarse suitability test is inconsistent with EPA's goal of making the PM-coarse NAAQS as stringent as the daily PM10 NAAQS. It is also inconsistent with how micro-scale data are currently interpreted. Please see additional detailed comments on this along with comments on 71 FR 2782, Special Considerations for data comparisons to the NAAQS, below.

71 FR 2738: EPA invites comments on possible adjustments to the five-part suitability test for comparison to the NAAQS. As proposed, this test cannot be adjusted to adequately protect the general population and make the siting appropriately representative. The requirements unjustifiably eliminate NAAQS coverage for large portions of the population for no other reason than to eliminate two industries (mining and agriculture) from the requirements of the Clean Air Act (i.e., potential emission reduction requirements). We request that EPA make available for review and comment the data justifying these exclusions.

71 FR 2739: EPA requests comments on alternative approaches to siting non-required PM-coarse monitors that do not meet the suitability test. States may have several alternatives. Many states have existing PM10 data and facility permit systems that provide strong indications of where PM-coarse concentrations may be elevated. States should be provided with the resources to monitor in areas where they anticipate a need for these data.

71 FR 2739-2740: EPA requests comment on what would be an appropriate modification to the suitability test for a site meeting only the third, fourth, and fifth parts and is near an industrial source or a roadway that would allow the site to be compared to the NAAQS. The suitability test is based on population density, which is not a scientifically valid method to predict PM-coarse concentrations. The criteria should allow any population-oriented PM-coarse monitor to be compared to the NAAQS. The NAAQS should apply everywhere except in micro-scale environments or on private property. This includes monitors near industrial facilities or roadways.

71 FR 2740: An earlier draft of the PM-coarse monitoring network design specified a limited number of rural PM-coarse sites. These would be used for comparison to the more urban network. This is the type of data needed by state planning officials who must determine the contribution to the urban PM-coarse concentration from sources outside of the urban area and outside of the effects of an urban control strategy. This paragraph is now located at 71 FR 2747 in the CFR section titled "Flexibility and Resources for Non-required Monitoring." This is an inappropriate placement. PM-coarse will be required at rural NCore sites.

Furthermore, there is no mention of rural site selection in the proposal. If the "health risks of coarse particles of various compositions and source origins" is, as EPA states, one of the goals of the speciation network, then coarse particle composition should be examined even in areas dominated by the agricultural and mining sources that EPA proposes to exempt. Although the studies of the impact of dust storms on human health appear to have been examined and found to be minimal, no information is provided on the impacts of coarse particles bearing fertilizer, pesticide or herbicide residues generated by agricultural practices, or on the impacts of particles bearing cyanide, acid residue, or other chemicals employed in the mining industry. The coarse particle speciation network should be designed to capture data from these sources.

PM-coarse Speciation Sites Requirements

71 FR 2740: The proposed PM-coarse network design requires speciation of PM-coarse in MSAs with populations greater than 500,000 that expect to have design values >80% of the NAAQS. It is inappropriate to require a speciation network before specifying what species it needs to identify. Analysis of individual coarse-mode PM non-crustal species is difficult and expensive, and the results are often related to the measurement technique used to produce the data. It is unclear if chemical speciation of PM-coarse has much value at the majority of sites (i.e., those not affected by specific local industrial sources). Using bulk analysis methods (e.g., XRF, PIXE, IC), the results will almost always indicate crustal material for sites that are at the neighborhood scale or greater. It will be very difficult to obtain useful coarse-mode carbon data (especially organic carbon), because levels will be low and analytical methods are not sufficiently sensitive. From a health effects perspective, what is presumed to be important is what is on the surface of the coarse-mode particle. Routine chemical analysis of that parameter, however, is not practical at this time.

We suggest a limited network (e.g., ten monitors nationally) of PM-coarse NCore speciation sites using the dichotomous sampler method, not the FRM difference method. The difference method has no value for speciation unless the chemical species in question is present primarily in the coarse mode, which would be true only for crustal material at most sites. For example, if the goal is to measure coarse-mode sulfate, nearly all sites will have >90% of the sulfate in the fine mode, which will appear in the PM2.5 and "PM10c" difference method samples. Precision and bias issues between the pair of samplers for PM-coarse will degrade the precision of the coarse mode sulfate to the point that the data are of poor quality. An exception to this could be where the site is near a local source of coarse-mode sulfate (e.g., sea spray or industrial operations).

Other examples of difficult analyses would be to determine, by carbon dating, the age of the carbon in the PM-coarse fraction or to identify agricultural pesticide residue. This may be useful information if the goal was to exclude source categories, but it is not the best use of limited monitoring funds and will likely not help to determine the species that have the greatest impacts on human health. Without consideration of any regulatory exemptions, EPA must scientifically determine the species of PM-coarse that are most likely to exhibit a relationship to health indicators. If target species of concern are identified, along with a practical analytical method, then the urban PM-coarse speciation network must be dense enough to provide an understanding of spatial gradients of species of PM-coarse of interest within any of the MSAs where speciation is implemented.

Public Comment

71 FR 2741: EPA invites comments on the mechanisms that the Regional Administrator might use to make states' PM-coarse monitoring plans available for public comment prior to approval. It appears that this proposed public process may be designed to allow EPA and the public to make determinations as to the suitability of specific PM-coarse monitoring locations and thus the potential comparability of each site's PM-coarse data to the NAAQS. This decision-making authority is currently under the purview of the state and local organizations that operate the monitoring networks, and EPA reviews the state's network design on an annual basis. Allowing the public to influence scientific decisions such as determining the scale of a specific monitoring location could result in a poorly designed network, a network influenced by special interests, or a sparse network due to the influence of people who do not want a monitor in their neighborhood. While public input is appreciated and informed public comments are helpful, scientific methods should form the basis of the PM-coarse network design.

PM-coarse Network Reviews

71 FR 2741: The proposed requirement for a five-year review of the PM-coarse network is arbitrary and unnecessary. States already meet with the EPA to discuss the suitability of the monitoring network for each of the criteria pollutants at least once each year. In addition, EPA has the option to ask about the suitability of any monitor at these meetings or at any time.

Continuous PM2.5 Network Requirements

71 FR 2741: EPA proposes that half of all required PM2.5 monitoring sites be required to operate continuous monitors of some type, even if not an FEM or ARM. The text needs to be clarified to explain that only a few of these continuous instruments need to be collocated with the filter based FRM instrumentation.

PM2.5 Network Requirements in Areas Well Above the NAAQS

71 FR 2741: EPA seeks input as to whether fewer monitors should be permitted when the design value is well above the NAAQS. The problem with this approach is that there is a greater need for data for public uses such as AQI mapping and potential health studies in areas that are substantially above the NAAQS.

The EPA justified its position when the PM2.5 program began by stating that the DQO process required fewer monitors when the data values were further from a decision breakpoint such as the annual NAAQS for PM2.5. This made some sense, considering how stable the data tend to be when determining an annual average over three years. This argument, however, no longer applies because the proposed lower daily standard and the form of the standard will make the data much less consistent from site to site.

EPA should not allow for reduced FRM PM2.5 monitoring when the levels are well above the NAAQS; the level of effort for monitoring should be increased in these areas. There are many new and innovative monitoring techniques that agencies may choose to use in these areas that potentially may increase public awareness or scientific understanding of the ambient air pollution problem. EPA cannot use a reduction in the required FRM network in a non-attainment area as a cost savings opportunity.

71 FR 2742: EPA proposes to maintain the current basic design of the PM2.5 network after enactment of the proposed lower daily standard. We think this is short-sighted. When considering the 98th percentile, the population of the MSA will be less indicative of where monitoring will be needed. This is going to cause a shortage of PM2.5 monitoring as new non-attainment areas are designated. EPA must find the resources to fund additional monitoring in the new non-attainment areas.

Proposed Standards and Exemptions

71 FR 2742: EPA solicits comments on enacting a secondary PM2.5 standard based on a shorter averaging period for purposes of protecting visual resources. We strongly support such a standard. NESCAUM's docket comments on the proposed revisions to the PM2.5 NAAQS include a detailed description of this topic. We expect that PM2.5 monitoring technology will become sufficiently developed to be able to reliably produce data for short-term determinations of ambient PM2.5 concentrations for this purpose.

EPA also proposes to revoke the annual PM10 and the daily PM10 standards in all areas except where there is currently a violating monitor. The annual PM10 standard has been the controlling PM regulation

for much of the country over the past 20 years. States have used this regulation to determine compliance, design maintenance plans, regulate industries, and determine if the public's health is being compromised. EPA's proposal would permit industry to pollute at will in all areas except the narrowly defined places where the PM-coarse standard applies. This runs counter to our goal to ensure that ambient air is reasonably clean for the entire population, regardless of whether they live in a dense MSA or in a rural area. We urge EPA to maintain the PM10 standards in their current forms in all areas at least until the PM-coarse network implementation issues are resolved.

Ozone Network

71 FR 2742: EPA's proposal to reduce the required number of ozone monitors is too drastic. The public has come to expect accurate ozone forecasts, timely health warnings and pollutant maps that are dense enough for realistic contours. States need within-MSA pollutant gradient information as well as data indicating transport and formation mechanisms. Fewer ozone monitors should be reduced than EPA proposes. It would be problematic if the proposed cuts were implemented equally across all regions.

71 FR 2742: EPA invites comments on the proposal to reduce the number of required ozone monitors in areas that are well above the NAAQS. We do not agree, as the need for more frequent and accurate health-based warnings is greater in the most highly polluted areas. While this need might be met with a small reduction in the required number of ozone monitors (albeit not as drastic as EPA proposes), this would only be the case if the savings are used to support either public awareness or scientific understanding of the ozone problem in that area. Reductions in ozone monitoring must not be used solely as a cost savings measure.

Another factor to consider is the expected NOx reductions from the mobile source rule. As NOx is reduced, ozone could increase at some of the sites where it is presently relatively low due to NO scavenging. In a potentially dynamic scenario like this, caution must be exercised when eliminating ozone sites.

Other Criteria Pollutant Network Cutbacks

71 FR 2742: EPA proposes to eliminate the requirements for monitoring carbon monoxide, sulfur dioxide, nitrogen dioxide, and to reduce the lead monitoring program. While it is a good idea to eliminate unneeded or ineffective monitoring, EPA's proposed reductions are too severe. States use gas pollutant data to track pollutant trends and to determine the accountability of emission control programs. Current and future needs for this data include but are not limited to: examining the results for the NOx SIP call, determining the effects of the upcoming diesel fuel changes, and accounting for the effects of acid rain reduction programs. The quality of the data should be improved by permitting the use of trace versions of the analyzers and by allowing audit concentrations to be suitable for the expected concentrations in respective areas. States should be able to work with their EPA Regional Offices to eliminate what is reasonable for their region based on comparisons to the NAAQS as well as trends.

EPA cannot use modeling results in lieu of actual gas pollutant data. Without actual data from monitors to compare to the modeling, it is difficult to have confidence in EPA's modeled results, and it will undermine public confidence in state air pollution control strategies.

EPA also proposes requirements for a network monitoring plan for each criteria pollutant, including public review. If the states follow the reduction plans for the criteria gas pollutants to the letter, then there will be a very sparse and indefensible network plan that the states will have to show the public.

Photochemical Assessment Monitoring Stations (PAMS) Network

71 FR 2743: EPA requests comment on its proposed revisions to the PAMs program. Generally, it makes sense to reduce some of the requirements for PAMs monitoring. However, it does not make sense to apply a one-size-fits-all approach to the reductions. EPA should contact the states in each PAMs area to find out which of the program elements are most important for their SIP development. Additionally, the proposed requirements for NOy and trace CO should have been discussed ahead of time with stakeholders. States and EPA Regional Offices should review the PAMS network with consideration to NCore sites. In areas with elevated ozone, it may be appropriate to include PAMs as part of the NCore site measurements.

We support the proposed change from a criteria level CO to a "true" trace level CO method. In most monitoring locations it should not present a problem for the lower range used by the more sensitive instruments. The NOy requirement is less likely to be beneficial. The commercial NOy instrumentation is not yet fully developed, and is very difficult to site properly. Unless the additional and substantial effort to make robust NOy measurements is taken, the data in urban areas are likely to be indistinguishable from the existing NOx data. EPA should not require NOy instruments at PAMs sites until their need is adequately justified and the commercially available instrumentation has been proven.

While previous discussions of PAMS revisions in the National Ambient Air Monitoring Strategy have included retaining Upper Air Meteorology sites, there is no discussion of PAMS-related Upper Air Meteorology in the proposal. We request that EPA clarify its intent with regard to continuing these measurements and provide funds for them if they continue to be required.

We concur with EPA's proposal to terminate PAMS carbonyl sampling, although consideration should be given to retaining some sampling during episodes. There are significant grant funds associated with PAMS-related carbonyl sampling which would need to be reallocated when this activity ceases. There would be hardship within the affected programs if those funds were moved to other states.

Although ozone measurements at Type 4 PAMS are valuable, the VOC and NOx readings may have been more influenced by local sources than long range transport. However, there are special cases where some Type 4 PAMS sites should be retained and funded, as they serve a critical function for receptor states of significant ozone transport from upwind. Maine and some Great Lakes states might be in this category.

Any PAMS site cutbacks across regions and transport corridors should be coordinated to ensure that the overall network design integrity is maintained. Without such coordination, states might retain sites that are redundant with other out-of-state locations or shut down sites that are important to the overall regional network.

With the streamlining of the network, EPA should also consider streamlining the technical method(s) . When the networks are reduced to two sites per city, it might be appropriate to coordinate the methodologies at those sites so that they each use one-hour GCs or use three-hour canisters. EPA should also reduce the VOC target list to those compounds that have been found to be abundant (regularly above 0.5 ppbC or more) and those compounds that are of concern because of their reactivity or toxicity.

In recent years, analysis requirements and funding have been discussed concurrently with discussions of PAMS measurements. EPA's proposal does not address this. Data analysis is spurred by the need for agencies to prove a trend or point of view, using ambient air monitoring data. A simplified, less

complicated data-set will be easier to generate and use. PAMS data analysis is important and potentially complex, and thus requires specific funding resources to assure that the data get properly analyzed.

Discontinuing and Relocating Monitoring Sites

71 FR 2743: EPA proposes to allow monitoring organizations to shut down other criteria pollutant monitors (CO, SO_2, NO_2, Pb) in areas of low concentration. It is not clear to us how those organizations are to "...seek input on which monitors are being used for health effect studies prior to shutting down...." Would EPA act as a clearinghouse for this type of information? If EPA does not coordinate these efforts, how will the needed information be collected?

71 FR 2744: EPA requests comment on the proposed criteria to be used for determining if a monitoring site can be discontinued. In the documentation justifying the NCore program, there are seven principle data objectives, including "NAAQS determination and related regulatory requirements." However, it appears that these monitoring sites may be closed solely based on their use for NAAQS determinations without consideration given to the other criteria. Because EPA initially deemed the other six monitoring objectives important enough to justify establishing monitors, we urge EPA consider those objectives for the criteria that will determine whether the sites should be terminated. EPA should examine other current and intended uses of the data. At minimum, such a determination must be done at the monitoring agency level.

71 FR 2744: EPA proposed to allow moving "a monitor not eligible for removal under any of the above criteria... to a nearby location with the same scale" if a monitoring organization encounters a problem that makes it impossible to continue monitoring at a given location. The proposed NCore network design would concentrate monitors in urban areas that are notoriously difficult environments for finding and maintaining monitoring sites. EPA should consider expanding this section from "a monitor..." to "a monitoring station..." in order to facilitate relocating NCore sites that must be relocated.

Monitoring Plans

71 FR 2745: EPA requests comment on where and how the public should be given access to state monitoring plans for purposes of review and comment. The requirement for making annual monitoring plans available to the public has merit. Because these plans will be required to be posted on states' websites prior to submission to the EPA, it would be relatively easy to make them available subsequently as well. Thus the public could examine the document at any time and comments received from the previous year's plan could be addressed when the following year's plan is drafted.

Requiring a monitoring organization to consider "the ability of the proposed network to support air quality characterization for areas with relatively high populations of susceptible individuals (e.g., children with asthma)...." is challenging to implement and, as written, is not comprehensive enough. It involves knowledge of public health aspects that may not be readily available to many monitoring organizations. Even if such information was readily available, merely characterizing the air quality in the vicinity of susceptible individuals does nothing per se to alleviate or improve health conditions in that area.

If the daily Air Quality Index (AQI) is found to be potentially insufficient for this purpose, it should be augmented or replaced with a more useful approach. Also, absent compelling circumstances to the contrary, few if any monitoring organizations would opt to shut down a monitoring site or device if it is aware that the data are, or would soon be, used in a health effects study. However, state, local and tribal monitoring organizations are not always made aware of such health effects studies, and without a central

clearinghouse for such information, these organizations cannot make informed decisions regarding network modifications. As noted in the comments relative to 71 FR 2743 (above), if EPA or another designated agency was willing to act as a clearinghouse for this type of information, the proposed requirement would gain support that it currently lacks.

Special Purpose Monitors (SPMs)

71 FR 2746: EPA states that, even though one year of SPM data can be sufficient to declare an area out of attainment for CO, SO_2, NO_2, 24-hour PM10, and Pb, it is not obligated to nor will take any designation action if less than two years of SPM data are available. EPA does not extend this approach to areas that are currently in nonattainment and wish to establish a SPM. In these cases, where monitoring for potential sources may be of greatest concern, EPA will not allow any SPM data to be exempted from a potential decision to declare an area in attainment. This policy creates a disincentive to monitor, thus eroding states' abilities to perform research necessary to design compliance strategies in the areas that need it most.

21 FR 2746: The proposal indicates that some monitoring organizations have used substandard QA procedures to circumvent the use of SPM data for regulatory purposes. Because of logistical constraints, some SPM sites cannot fully meet all QA requirements.

71 FR 2746: The EPA invites comment on the legal interpretation of the way SPM data are used. This request for comment represents EPA's legal interpretation of the uses of data that appears to ignore the scientific and research purposes the data are intended to serve. Many of the SPMs are located away from population centers, at locations such as mountain summits. These sites were established for research purposes to better understand the nature of air pollution transport and have nothing to do with local emissions. The EPA should use common sense to determine when the research needs for a SPM outweigh the potential benefit of determining that an area is in attainment or non-attainment of a NAAQS.

71 FR 2746**:** EPA has requested comments on the option of using grant agreements to achieve quality system objectives for SPMs rather than making these objectives part of the final regulations. We do not agree with the underlying assumption that all SPMs must meet all standard quality system objectives. There are many cases where requiring that SPMs follow exactly the quality system objectives would make it impossible to operate the SPM at all.

71 FR 2747: Data from SPMs should be required to be submitted to the EPA's AQS database system. These data are of special interest to researchers interested in public health, ecosystem impacts, and atmospheric processes. The SPM data must include a metadata file that indicates why the data are categorized as a SPM, and must include flags that indicate the level of quality of the data. SPMs should not be used for attainment purposes unless specifically determined to be appropriate for that use prior to installing the SPM site. Researchers have specific data needs and should not lose these important tools because a state may be penalized with an unsolvable non-attainment area.

71 FR 2747: EPA states that it will negotiate reductions in funding for activities that are not sufficiently valuable to the air quality management process. The air quality management process is ill-defined. Are states' and EPA Regional concerns addressed in this process or is the process defined solely by national EPA concerns?

Network Assessments

71 FR 2748: EPA requests comments on the proposed five-year network assessments to be performed by states. We agree that it is a good idea to review the overall direction of monitoring programs. Over time, the pollutants of concern change, monitoring technology evolves, and the number and size of population centers may change. Most of these changes, and network oversight, should be addressed in the annual network review performed by the EPA Regional offices. The five year network review should be limited to and focus on issues of national priority that are outside of the purview of the routine annual reviews. This would reduce the potential for redundant administrative burden on monitoring staff.

Other EPA-Funded Monitoring Networks

71 FR 2748: The EPA supports other monitoring programs including CASTNET, NADP and IMPROVE. None of these programs support air monitoring for NAAQS determinations. The value of these programs must be determined by examining the usefulness of the scientific data they provide.

CASTNET is the most problematic of these programs. It has a very poor track record for data quality and its operation by a for-profit contractor raises additional questions about its impartiality because the objective for the CASTNET program has changed recently to make it the sole program responsible for determining the success or failure of the pollution credits trading program. EPA must not redirect STAG funds for CASTNET monitoring initiatives.

IMPROVE provides speciated PM data from mostly rural areas for the regional haze rule. This is an important program, but it is of course of less significance than the state run monitoring programs that determine pollutant concentrations where significant populations live and work. This program should be supported but not at the expense of monitoring programs in more populated areas.

NADP is a successful program model that has collected deposition data for a long period of time. This program could be improved by adding mercury to their core monitoring target list, instead of having MDN be a separate program within NADP.

Field Blank Data Requirements

71 FR 2749: EPA requests comment on the proposed requirement to submit PM2.5 field blank data to the AQS. This requirement would have been particularly useful when the program first began and some of the samplers were still in the developmental stage. Submitting blank data still remains a good idea. It may be that there are seasonal, geographical or sampler specific blank differences that are currently going unnoticed. Blank data submissions should be required, but the implementation of the requirement should not be onerous to the monitoring agencies or detract from routine sample collection activities. For example, blank filters are of less value than actual samples, so if a normal sample is damaged prior to use, most agencies would substitute a blank if one was available. Also, some agencies assign field blanks to sites randomly, so the submission of blank data should be based on the overall number of samplers rather than requiring a certain number of blanks from each site.

II. CFR Part 53

Test Procedure for Methods for PM10 and Class I Methods for PM2.5

71 FR 2761 (re: 53.34 Part b and Table C4): The PM10 test procedures for Class II and Class III methods appear to have been eliminated. These instruments may be needed for areas not currently meeting the PM10 daily standard as well as for areas subject to maintenance plan monitoring. There also is the possibility that states may enact state PM10 standards to facilitate permit requirements and satisfy concerns with welfare effects that are normally associated with the secondary NAAQS.

The proposed PM10 and Class I PM2.5 testing requirements, including the number of locations, the lack of summer and winter testing, and the minimal number of samples, are not rigorous enough and should be strengthened. There are sufficient semi-volatiles in PM10 to cause the measurement from a potential method to be biased either seasonally or geographically. There is also a concern regarding the inlet efficiencies for specific constituents of PM2.5 and PM10. Recent comparisons between IMPROVE and STN speciation data have shown that differences in inlet configuration can have a large effect on the capture efficiency for certain elements such as crustal materials.

Test Procedures for Class II and Class III Methods for PM2.5 and PM-coarse

71 FR 2762 and 71 FR 2722 (re: 53.35 Part b and Table C4): The proposed Class II equivalency tests are not adequate, particularly in light of intended speciation analysis of the resulting samples. The seasonal and geographical differences in the concentrations of individual species of PM-coarse are likely to be greater than that for the overall mass. Recognizing the costs associated with method testing, it is not possible to add enough testing to ensure that the PM2.5 and PM-coarse methods are adequate in every area of the country in every season. A preferable approach is to require Class II designated methods to be evaluated against collocated FRMs at least at one site in each monitoring organization. These data comparisons would be ongoing and would include mass and limited speciation to ensure that the Class II method produces data that meet the DQOs.

The seasonal and geographical comparison tests that have been proposed for Class III equivalence testing are inadequate, particularly in light of the excessively large acceptance range for the comparison results. The acceptance ranges are larger than the expected differences in actual concentrations across large populated areas, and even from one populated area to another within the same monitoring agency. This could have the effect of making measurements across a monitoring agency indistinguishable from one location to another. This would make control strategy development and SIP implementation nearly impossible.

If the costs of testing are too high, then there will be fewer vendors who apply for equivalency. Because continuous methods are advantageous for many reasons, there needs to be a cost effective equivalency test such as what EPA proposes but with an additional requirement for adequate and continued similarity with data from the FRM. This could be achieved by monitoring the quarterly performance of routinely operated collocated Class III FEMs and PM2.5 and PM-coarse FRMs operating on a reduced schedule. If the DQOs are not met at some point after designation of the Class III method at a particular site, then a NAAQS determination cannot be made with the Class III method. This potential restriction on the Class III method should apply at least at the monitoring agency level. This should prevent the situation where a continuous Class III FEM instrument that is biased with respect to the FRM may measure a NAAQS violation while a collocated FRM on a one-in- three or a one-in-six-day schedule does not.

Class III methods that are found to be unacceptable in some regions in some seasons may still be useful for public reporting purposes, such as AIRNow and mapping. Such uses of the data permit adjustments that could make the data from biased continuous instruments more similar to data from FRMs.

Specific Performance Requirements for PM-FEM (2.5 and coarse) Class III Continuous Methods

71 FR 2768-69: EPA's proposed performance requirements for PM2.5 and PM-coarse continuous (Class III) methods are too lenient. This may be an attempt to "lower the bar" and make it more likely that Class III methods would be available in the next two years. While we agree with EPA that we want to transition as rapidly as possible to a network of mostly continuous PM methods (for reasons of cost savings, better temporal data resolution, and real-time data availability), we do not want to sacrifice PM data quality in the process.

These Class III FEM methods would be used to determine compliance with the PM NAAQS. In areas that are within 10 percent of that value, the uncertainties tolerated under the proposal are excessive. We acknowledge EPA's efforts with the DQO tool software, but question the validity of applying that tool developed for assessing the uncertainty for determination of compliance with the annual PM2.5 NAAQS to a daily PM NAAQS. For PM2.5, the proposed daily NAAQS is likely to be the controlling standard in many locations. For the proposed PM-coarse NAAQS, there is only a daily standard. This means that, instead of using the mean of at least approximately 350 samples (three years of third-day sampling) to determine NAAQS compliance, only three samples (i.e., three 24-hour sample values) would be used to determine compliance with a daily NAAQS with a percentile form. Thus, the statistical power of a large sample size (>300) that works for the annual NAAQS (damping out variability in day to day instrument performance) is not present in a daily NAAQS (three samples). The DQO tool does not take that into account, and therefore its results are questionable in this context.

The other problem with the DQO tool approach that was used to determine the allowable performance error for Class III FEM methods is that it is based solely on the goal of determining the uncertainty of compliance with the PM NAAQS "bright line" value. EPA acknowledges that, at least for NCore sites, the PM2.5 and PM-coarse data will serve multiple purposes, such as modeling, visibility, mapping and outreach, and health effects research. For such non-NAAQS data uses, data of reasonable accuracy and precision are needed from Class III methods, even at levels well below the NAAQS. The DQO tool does not address these issues, and the proposed performance requirements are much too loose for these data uses.

For PM2.5, Figure C-2 (see 71 FR 2768) allows a Class III FEM continuous method to have an intercept as low as -4 $\mu g/m^3$ and as high as +3 $\mu g/m^3$ compared to the FRM. At the daily standard of 35 $\mu g/m^3$, this limit combined with the slope requirements results in tolerable errors of 0.5 $\mu g/m^3$ for either extreme. However, there are many days where the hourly PM2.5 can approach very low levels (1 to 4 $\mu g/m^3$). Daily means of 2 to 5 $\mu g/m^3$ are not unusual. At these lower levels, EPA's proposed approach of balancing slope errors with intercept errors breaks down. Under this scheme, reported negative daily means of a few $\mu g/m^3$ would be acceptable. We consider such performance unacceptable for a FEM, given the non-NAAQS data uses, and recommend that Class III FEMs meet the same performance requirements as shown for Class II FEMs in this figure.

For PM-coarse, the proposal is unacceptable. The proposed PM-coarse NAAQS of 70 $\mu g/m^3$ is twice as high as the PM2.5 proposed daily NAAQS. Figure C-3 at 71 FR 2769 allows intercepts ranging from approximately +17 to -22 $\mu g/m^3$ relative to the FRM. From the perspective of demonstrating compliance with the PM-coarse daily NAAQS, an acceptable continuous monitor could therefore report anywhere

from 57 to 79 μg/m^3 for a daily mean. Given that only three daily samples would be used for determining NAAQS compliance, these are unacceptably loose performance criteria.

In much of the Eastern U.S., the siting scale of NCore sites will result in annual mean PM-coarse daily mean values of 8 to 12 μg/m^3. Although the standard is daily, this mean metric indicates there will be a substantial percentage of days with PM-coarse (hourly or daily) in the single digits. Under the proposed Class III PM-coarse acceptance criteria, this could result in reported concentrations of -10 to -15 μg/m^3 on a relatively common basis. This is an absurd result, and could render the continuous PM-coarse data useless for modeling, mapping, outreach, and health effects uses. We recommend that the performance criteria for Class III continuous PM-coarse monitors be set to be at least as tight as the Class II FEM criteria, and preferably even more stringent for the intercept. Given common Eastern U.S. PM-coarse hourly concentrations in the single digits, an intercept limit of no more than +/- 2 or 3 μg/m^3 would be appropriate. Using the Class II PM2.5 intercept limits of +/- 1.5 μg/m^3 would be even more desirable.

There is no mention of statistical significance (uncertainty) of the slope or intercept regression terms. Normal practice when comparing measurement methods is to require calculations to show that the reported intercept is different from 0.0 at p=0.05 (95% confidence interval), and that the slope is different from 1.00 at the same p value. For the Class III FEM, this is most important for the intercept. Having this calculation as part of the test report requirements ensures that methods are not failed because of the limited number or value distribution of the sample pairs used to generate the regression parameters. In other words, if the reported regression intercept is out of the required range but is not significant, it is considered to be zero. Ideally, the final regulations should require some reasonable limit on the reported intercept, even if it is not significantly different from zero. This would protect against test scenarios where all the data are high (e.g., >30 μg/m^3).

PM-coarse Class II FEM Field Tests

71 FR 2774: For the field tests of Class II PM-coarse methods (dichotomous samplers) described in section 53.58, EPA must consider the potential for loss of PM-coarse mass from dichotomous sampler filters during transport. Given the limitations of the PM-coarse FRM, routine sampling will be done with either continuous methods still under development or the dichotomous sampler method. Based on recent EPA field test data, the "dichot" is widely assumed to be able to pass Class II equivalency tests for PM-coarse (but not necessarily for PM-fine). What remains to be shown is the post-sampling transport requirements needed to minimize inertial loss of large particles from the coarse-mode filter. Available tests show substantial losses during shipping. In the 1980s, EPA's IP dichot network used greased Teflon filters with beta-attenuation mass measurements to resolve this transport loss issue. The existing literature shows losses (for PM15 coarse mode) in the range of 30 to 50%.[2] Losses would be expected to be less for a 10 μm cut-point, but this is still a critical test that needs to be performed before dichot samplers can be widely deployed or approved as Class II equivalent methods. This post-sample collection filter shipping or transport coarse filter mass loss test should be included in section 53.58 for dichotomous samplers.

[2] Spengler and Thurston, *JAPCA*, December 1983, 33:12, and Dzubay and Barbour, *JAPCA*, August 1983, 33:7.

III. CFR Part 58

58.10 Subpart B – Monitoring Network

71 FR 2779-2780: Re: section (b): EPA proposes a requirement that the annual monitoring network plan incorporate cost information. There is no description of what specific information is needed, what should be included, or how this information will be used. Accurately calculating cost information is very difficult due to how the operation of a monitoring program is intertwined with other monitoring and related functions. Costs will be specific to each monitoring organization and will be affected by factors such as scale of operation and cost of transportation. We do not see the need for this requirement in a monitoring network plan.

Re: section (c): The proposal states that "the annual network monitoring plan must consider the ability of existing and proposed sites to support air quality characterization for areas with susceptible populations such as for children with asthma." The network monitoring plans are designed to characterize air quality to which all Americans are exposed. The public health aspects of identifying and protecting sensitive subpopulations should be addressed primarily in the setting of the NAAQS, which are based on extensive and comprehensive evaluation of public health effects and protection. Adding the complexity of the proposed requirement may also confound the siting of monitoring stations.

Likewise, the NAAQS must be applicable in all areas of the country. For example, what would an air monitoring agency be required to do if it found a population susceptible to PM-coarse in a rural area between mining and farming operations? Requirements such as those proposed could be rendered virtually impossible to implement.

Re: section (d): The proposal requires public notification of agency annual network monitoring plans prior to their submission to the EPA. Therefore, there should be little to no need for public hearings on planned changes to the network plans. EPA Regional Administrators or state agencies should be able to decide on a case-by-case basis if an issue requires the public input that a hearing provides.

Re: section (e): The proposal requires a five-year network review. In general, it is a good idea to periodically review the direction of monitoring programs. Over time, the pollutants of concern change, monitoring technology evolves, and the number and size of population centers may change. Most of these changes, and network oversight, should be addressed in the annual network review performed by the EPA Regional offices. The five-year network review should be limited in and focus on issues of national priority that are outside of the purview of the routine annual reviews. This would reduce the potential for redundant administrative burden on monitoring staff.

Required Sample Schedules for PM2.5 and PM-coarse

71 FR 2780: Re: section 58.12 (d) and (e): We support EPA's proposal to allow one-in-three-day manual method sampling schedules for determining the daily NAAQS PM2.5 design values. However, we request that EPA change 58.12e (for PM-coarse) from daily to the same one-in-three-day manual method requirement as for PM2.5. We see no reason to support different sample schedule requirements for these two daily PM NAAQS.

A one-in-three-day manual method option for both PM sizes provides flexibility for agencies to use filter based sampling methods (e.g., a Class I or II FEM) for determining NAAQS PM design values in situations where that is preferred by the agency. This could be the case where either the data from a

continuous method are not sufficiently robust or the additional uncertainty introduced by using a Class III FEM continuous method might potentially change a site's compliance designation with the daily PM NAAQS.

Furthermore, since the present and proposed method of calculating the daily PM design values in Part 50 (Appendix N for PM2.5 and Appendix P for PM-coarse) produces a lower (i.e., less stringent) value on average for a one-in-three-day frequency sample data-set compared to a daily sample data-set (by approximately 1 $\mu g/m^3$), we recommend that EPA develop a more robust but equivalent statistical approach to calculating the daily PM design values, i.e., one that is free from the sample size or run-schedule bias contained in the proposed calculation method. For more detail, see NESCAUM's comments on proposed revisions to Part 50, the PM NAAQS (Docket I.D. # EPA-HQ-OAR-2001-0017). We need the ability to run one-in-three-day manual PM sampling, but do not want that to effectively result in weaker PM daily standards when many more sites will be close to the revised daily PM standard.

58.13 Monitoring Network Completion

71 FR 2781: Re: section (a): The proposed requirement for a PM-coarse network to be installed by January 1, 2009 is not predicated by the EPA actions that must occur in a timely fashion for states to meet this deadline. EPA has to designate acceptable continuous methods for PM-coarse, and section 103 funds must be provided for purchase and initial operation and maintenance of the new network.

58.14 System Modification

71 FR 2781: Re: section (c): In the documentation justifying the NCore program, there are seven principle data objectives, including "NAAQS determination and related regulatory requirements." It appears, however, that these monitoring sites may be closed solely based on their use for NAAQS determinations. Since EPA initially deemed the other six monitoring objectives important enough to justify establishing monitors, we urge EPA to consider also those other objectives for the criteria that will determine whether the sites should be terminated. EPA should examine other current and intended uses of the data. At minimum, such a determination must be done at the monitoring agency level.

58.15 Annual Air Monitoring Data Certification

71 FR 2749 and 2781: EPA requests comment on the proposed revision to the certification date (from July 1 to May 1) for air quality data, including a description of possible barriers to the accelerated time frame. The earlier date will pose a problem for data that are determined after lab analysis from samples collected in the field. Because even some continuous data (e.g., PM) rely on filter samples for final validation, the EPA should leave the existing certification date in place for all data.

58.20 Special Purpose Monitors

71 FR 2782: Re: section (b): There are many cases where requiring that SPMs follow exactly the quality system objectives would make it impossible to operate the SPM at all. For instance, if you are operating an ozone instrument on the 108th floor of a building in New York City, you may not be able to meet all of the probe residence time requirements or implement the through the probe audit program. In addition, there are examples where high altitude ozone sites have poor data availability because audits cannot be performed during periods in the winter when the road to the summit is impassable. This may be impossible to avoid but has no bearing on public health and welfare. The public is better served by having these data even if they have to be flagged as not meeting all of the quality objectives than it would

be if these monitors had to be discontinued. The operation of each SPM must be evaluated in light of its monitoring objectives and the circumstances in which the data must be collected.

The data from SPMs should be required to be submitted to the AQS system. These data are of special interest to researchers interested in public health, ecosystem impacts and atmospheric processes. The data should include a metadata file that indicates why the data are categorized as a SPM and include flags that indicate the level of quality of the data.

58.30 Special considerations for data comparisons to the NAAQS

71 FR 2782: Re: sections (b1) and (b2): The proposed boundaries for population block groups are arbitrary, even based on the short transport distances associated with PM-coarse. These population-based boundaries do not take into account the likelihood that a less populated area downwind of several highly populated areas may be exposed to higher PM-coarse concentrations than the areas of higher population.

71 FR 2738 and 71 FR 2782: Re: section (b4): The fourth part of the PM-coarse suitability test is inconsistent with the EPA's goal of making the PM-coarse NAAQS as stringent as the PM10 daily standard. The PM10 network has existed for nearly 20 years without the specific restriction that the monitors have to be removed from industrial or any other large source except roadways. Providing this siting exception for a potential PM-coarse network makes the PM-coarse standard more lenient than the PM10 daily standard.

The fourth part of the PM-coarse suitability test is also inconsistent with how micro-scale data are currently interpreted. PM2.5 micro-scale data can be used to determine compliance with the NAAQS if the site is found to represent a larger population in a similar area. Why would the PM-coarse NAAQS not also adequately protect a population living in a micro-scale area representative of a larger area and a larger population?

The EPA states in a footnote that this is due to the shorter transport distance for PM-coarse. We maintain that this is an unreasonable assertion, since differences in transport distances are insignificant when considering the concentrations representative of micro-scale monitoring. The Office of Management and Budget (OMB) staff who reviewed the EPA proposal referred to this position as "kind of a Goldilocks take."[3]

71 FR 2782: Re: section (b5): We see no justification for EPA's proposal to eliminate the agriculture and mining industry from a health-based mass standard. It is likely that mines engaged in processing metal ores, or farms that spray and till pesticides, are emitting PM-coarse that is potentially more toxic to human health than PM-coarse from urban traffic or construction. These rural emitters of PM-coarse also are likely to produce highly localized and concentrated plumes of PM-coarse. This is due to how farms and mines operate, in contrast to the sources of PM-coarse in urban areas where the sources are small and numerous resulting in PM-coarse concentrations that are more uniform and dilute.

71 FR 2786: We seek clarification on whether passing leak checks are required as part of the monthly flow rate audit procedure. Past experience has shown that some of the gasket materials in the sample flow path of FRM instruments do not seal well in very cold temperatures, making a passing flow rate audit sometimes next to impossible to achieve.

[3] Fax from Office of Management and Budget, Office of Information and Regulatory Affairs to Jason Burnett, December 13, 2005 ,page 6. EPA Docket Document ID: EPA-HQ-OAR-2004-0018-0031

71 FR 2786: We support harmonizing for all PM pollutants the number of required sites for collocation. However, EPA's proposal may be too prescriptive, particularly for small state, local and tribal monitoring agencies. We recommend that most of the collocated instruments are sited at locations where the data may be important for attainment designations. However, additional flexibility should be incorporated into the regulations that permit exceptions for issues such as site suitability and collocation with other programs. We support encouraging larger agencies to place one collocated instrument at a relatively clean site to demonstrate method performance at lower concentrations.

71 FR 2787: The monthly flow check requirement should not apply to high volume PM10 and TSP samplers. It is likely these samplers will be phased out of the network in the next few years. This additional QA burden is not likely to make the resulting data from these instruments more consistent with data from the newer low volume samplers.

71 FR 2787: We urge EPA to develop new FRMs for lead monitoring. There are other techniques, including ICPMS and XRF, that could be used with the smaller filters associated with low volume sampling. Determining lead concentrations from low volume filters will make the data more consistent with other federal sampling programs, such as STN, IMPROVE, and the TTN.

Acceptable Regional Equivalent Methods

71 FR 2793: We urge EPA to proceed cautiously with the concept of the proposed ARM for continuous PM measurements. A method that can not meet the Class III FEM performance requirements has, by definition, a response that is a strong function of aerosol chemical composition or physical properties. This is something that is very undesirable for a PM monitor, since there are few sites where aerosol characteristics do not vary substantially over the course of the day or year. An example of a possible ARM would be nephelometry or other optical techniques. Although, on average, those methods may produce reasonable agreement with the PM FRM at some locations, the response is strongly dependant on many factors, including aerosol size and surface composition. In transitioning from a traffic-dominated aerosol to a wood-smoke dominated aerosol, even at the same site, the relative response could change by a factor of two. Averaged over a day, the comparison may look acceptable, but the hourly data could become severely compromised, and thus could bias sub-daily health effect studies (i.e., one of the core uses of continuous PM data) towards lower health effect estimates. If an ARM is used, on-going collocation (third or sixth day) must be required.

An additional concern with ARMs is how a "region" is defined. From the perspective of an ARM, a region means an area with an aerosol with reasonably consistent physical and chemical properties on average. This region could range in size from a few miles to a multi-state area, and may be difficult to properly define in advance.

Methods Employed at NCore and PAMS Sites

71 FR 2795: Re: Appendix C to Part 58 3.1: The EPA proposes that the methods used at NCore sites must be designated or equivalent methods. This should be revised. The EPA should certify more monitors for filter-based and automated methodologies. It is unlikely that many of the newer instrumentation such as continuous aerosol speciation analyzers will ever be prevalent enough to justify the effort required to pursue equivalency. Currently, many states operate instruments that surpass the types of instruments that are designated as FRMs or FEMs. These undesignated methods are often better suited for a particular area than the designated instruments, or are prototypes of new improved

instruments. For example, the trace gas instruments suggested for use in NCore sites are not presently designated as FRMs or FEMs. We request that EPA require these methods to be designated. The states, however, still need the flexibility to operate non-designated instruments at SLAMS sites.

71 FR 2795: Re: Appendix C to Part 58 4.1: The language in this section is inconsistent with preamble language at 71 FR 2728, which states that only the ultraviolet photometry FEM could be used at PAMs sites for measuring ozone.

Design Criteria for NCore Sites

71 FR 2797: Re: Appendix D to Part 58 3.0 Part (a): CASTNET sites cannot be used in lieu of state-operated rural NCore monitoring sites. The planned upgrade of CASTNET does not include the required parameters such as species of carbon and quality-assured criteria gases. Please see our previous CASTNET comments for 71 FR 2716, above. For these reasons and others, the CASTNET program must not be integrated with the SLAMS or NCore programs.

Re: Part (b): NOy should be dropped from the parameter list until it is determined that the data are necessary and the method has been fully developed. Many implementation issues will make data from the method in its current form difficult to collect and indistinguishable from NOx data. When robust NOy methods are commercially available, we encourage NOy for NCore sites that include PAMs monitoring.

Design Criteria for Ozone Sites

71 FR 2797: Re: Appendix D to Part 58 4.1: The EPA's proposal to use the much larger Combined Statistical Areas (CSA) as a basis for determining the minimum ozone monitoring requirements, rather than the smaller Metropolitan Statistical Areas (MSAs) and Metropolitan Statistical Divisions (MSDs), is contrary to the first stated monitoring objective in Appendix D part 58 1.1a. to "provide air pollution data to the general public…" EPA's proposal would greatly reduce the number of required monitors in areas surrounding major cities where a large percentage of the population resides. For example, under the proposal, only three to four ozone monitors would be required for the New York City CSA, an area with 21 million people that encompasses the Long Island MSD, the Poughkeepsie MSD, New York City, and parts of New Jersey and Connecticut. This is a large, complex area with distinct rural and metropolitan areas influenced by regional transport, local sources and coastal meteorology. The current ozone monitoring network is a result of more than 30 years of development, and is comprehensive and efficient. The proposed regulation must not diminish this network.

The minimum requirements listed in Table D-2 of Appendix D to Part 58 need to be increased. The number of required monitors should be further increased when the design value concentrations are above 85% of any NAAQS. In addition, state air monitoring agencies should be allowed to decide on a case-by-case basis if their metropolitan areas need to be considered separately as an MSA or as a CSA when designing adequate air monitoring networks.

PM2.5 Chemical Speciation Requirement

71 FR 2802: Re: Appendix D to Part 58 4.7.4: The EPA claims that it encourages speciation at sites where chemically resolved data would be useful for developing State Implementation Plans. In the current budget guidance, EPA has decided to cut a large portion of the funding for these sites. These decisions were made without state input, and could compromise SIP development activities at the state

level. We urge EPA to include states in such decisions, and to consider fewer reductions of speciation samplers in areas where they have utility for SIP development.

PM Filter Archive Requirements

71 FR 2749 and 71 FR 2803: Re: Appendix D to Part 58 4.9: The EPA requests comments on the proposed requirement to archive all PM filters for a period of one year. The idea that these filters are valuable and should be archived is completely accurate. New York State has used many archived filters for a variety of purposes, including metals analysis, e.g., determining the extent of urban road dust, NAMs metals reporting, molecular marker characterization, and in bio-assay investigations. The problem with the proposal is that it does not specify who has the responsibility to determine the best use of these filters. The states need to have this right because their monitoring network plan may have been designed with a specific use for these filters. Other federal and health related uses should be addressed on a case-by-case basis.

The requirement for one year of storage does not go far enough. In practice, New York State has found the occasion to use archived filters that were three years old. The Harvard Six City Study has conducted additional analysis on Teflon filters that were fifteen years old. The low volume PM sampler filters are small and can be stored compactly on petri slides. They should be stored for five years, which matches the storage requirement for all of the official documentation for the other criteria measurements.

Minimum PAMS Requirements

71 FR 2804: Re: Appendix D to Part 58 Table D-6: The proposal indicates that upper air meteorology measurements are required at least at one location in each PAMs area. The requirement for upper air meteorology does not appear in the PAMs network requirements text and EPA has not provided sufficient funding to include these measurements, at least for the NY PAMs sites. Either EPA should remove this requirement or provide funding for these activities.

PM-coarse Probe Height Siting Criteria

71 FR 2748 and 71 FR 2804: Re: Appendix E to Part 58 2.0: EPA requests comment on the proposed PM-coarse probe height siting criteria. The proposal is problematic in that two meters is too low for an NCore (neighborhood to urban/regional scale) or even a mid-scale site PM-coarse inlet. A PM-coarse inlet this close to the ground will be representative of very local (micro-scale) conditions, rather than the desired larger spatial scales. PM-coarse can be very different than PM2.5 or PM10 in its sensitivity of reported concentrations and scale of representation with respect to inlet height above ground. Because nearly all of the PM-coarse at the majority of sites is wind-blown dust or re-entrained roadway material most of the time, the vertical gradients are expected to be much steeper than for PM2.5 (or PM10 when a substantial percentage of the PM10 is PM2.5). This results in inlet height determining, at least in part, the spatial scale of a PM-coarse monitor. Furthermore, it makes no sense to operate PM2.5 and PM-coarse monitors at the same location but require different inlet heights. This counters the utility of having the data collocated and the principle that multi-pollutant data are more valuable to modelers and scientists than stand-alone monitoring data.

EPA should increase the middle scale site PM-coarse probe inlet minimum height requirement to at least four meters, and a minimum of five meters for NCore sites. While these requirements may present logistical issues at some sites and will add significantly to the cost of deploying a site, the heights are essential to obtain the proper spatial scale for PM-coarse sites. When samplers are on a building roof or

trailer/shelter roof, we recommend that the PM-coarse inlet be at least three meters above the roof. A maximum height above ground must also be specified, and we recommend ten meters for NCore siting.

Separation Distance to Roadways

71 FR 2748 and 2805: Re: Appendix E to Part 58 6.1: EPA requests comment on the proposed requirement that would increase the separation distance from ozone monitors to roadways. We do not support adopting this proposal. The phenomenon of NOx scavenging is well understood and has always been a factor in how ozone data are interpreted. However, EPA's proposed requirement will not reduce the scavenging problem for monitors that are located in all but the most rural locations. The effects of NOx scavenging are primarily area wide in populated regions. Thus, moving a few meters further from one roadway will not likely result in a substantial change in the overall actual ozone concentrations. It would be more beneficial to increase the public awareness and scientific understanding of the scavenging effect.