



EPA Docket Center
Attn: Docket No: EPA-HQ-OAR-2007-0492
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

August 31, 2012

Dear Sir or Madam,

The Western States Air Resources (WESTAR) Council, an association of 15 western state air quality managers, appreciates the opportunity to comment on the proposed *National Ambient Air Quality Standards for Particulate Matter*. WESTAR does not support the addition of a secondary visibility standard as proposed for several reasons. First, EPA used very limited data from a few visibility preference studies that do not provide an adequate basis on which to establish the need for, level, or the form of a national secondary standard. Second, any potential benefits associated with a secondary visibility program are already being effectively achieved within the context of the existing NAAQS and regional haze regulatory structure. WESTAR also notes that the workload burden on both states and EPA Regional Offices to implement a secondary visibility standard is unreasonable and unnecessary. Finally, the use of the Class I area IMPROVE monitoring network is inappropriate for a visibility standard EPA describes as applicable “primarily in urban areas.”

Visibility Preference Studies

The current science is insufficient to support the determination of an acceptable level of visual air quality, or to “specify a level...“requisite to protect the public welfare.” We recommend delaying the visibility standard, while EPA conducts additional studies.

The proposed level of the secondary visibility standard is based on four visibility preference surveys comprising 852 people. This is a very small and unrepresentative study population upon which to base a national standard. The studies were conducted for various purposes in Phoenix, near Vancouver, BC (Canada), Denver and Washington DC. Only the Phoenix study, conducted for the Arizona Department of Environmental Quality, used a statistically representative population sample. The Vancouver study involved undergraduate and graduate geology students; the Denver study, conducted for the Colorado Department of Public Health and Environment, selected participants from civic associations, community groups, and

employees of state and local government organizations; and the Washington DC study used consulting firm employees.

In the 2006 NAAQS review, after taking into account the public perception surveys and existing state and local visibility standards within the US, the EPA Administrator judged that “. . . these sources [of information] provided useful but still quite limited information on the range of levels appropriate for consideration in setting a national visibility standard primarily for urban areas, given the generally subjective nature of the public welfare effect involved” [77 FR 38968]. In the current review, only one very limited public perception/attitude survey was added to the database – the 2009 Washington, DC study of 26 consulting firm employees.

Furthermore, an important component of a population risk assessment is the characterization of visual perception variability, which the current perception studies do not consider. Regional, demographic, socioeconomic and other factors may impact individual responses as measured in visibility preference studies. We note that the proposed rulemaking lacks a discussion of the sources of variability, their potential impact on visibility perception and the level of uncertainty in the analysis as a result of the variability.

Given that the scientific basis for the standard is largely based on unrepresentative sample populations, we do not have confidence in the analysis. Therefore, we urge EPA to delay setting a secondary visibility standard to allow time to develop a more robust scientific basis for such a standard.

Regional Haze and Secondary NAAQS

The existing regional haze program is designed to maintain the best visibility days and improve the worst visibility days over time below the level of the proposed secondary standard. Summarizing past reviews of a secondary PM NAAQS, EPA states that “The structure and requirements of sections 169A and 169B of the CAA provide for visibility protection programs that can be more responsive to the factors contributing to regional differences in visibility than can programs addressing a nationally applicable secondary NAAQS. The regional haze visibility goal is more protective than a secondary NAAQS since the goal addresses “any anthropogenic impairment rather than just impairment at levels determined to be adverse to public welfare” [77 FR 38966].¹

We agree with this assessment and believe that existing regulatory mechanisms are adequate to improve urban visibility. Although urbanized areas in the west are well monitored with ambient PM_{2.5} FRM monitors, EPA is not proposing to utilize them for a secondary visibility standard. These particulate samplers utilize essentially the same mass particulate measurement methodology as the CSN (urban speciation) and IMPROVE monitors. There is a correlation between particulate matter and visibility. There is also a correlation between particulate matter control programs in urban areas (including regional haze) and improving urban visibility. Some large point sources are not associated with urban areas, impair urban visibility and are controlled through the regional haze and other regulatory programs. We

¹ See also.” Policy Assessment for the Review of the Particulate Matter National Ambient Air Quality Standards. April, 2011. EPA 452/R-11-03. P.4-3)

believe that between urban oriented particulate matter control strategies and long-term regional haze strategies, also controlling urban sources, urban visibility is being protected and urban visibility will improve over time without a secondary visibility standard.

Workload Burden

As noted above, the Regional Haze programs already address and protect visibility. For both states and EPA Regional Offices, the workload burden of determining initial attainment status as well as ongoing implementation and monitoring is unwarranted. Numerous control strategies are being implemented nationally to comply with Regional Haze and several other rules are being proposed. These rules include the Mercury Air Toxics Rule and the Cross-State Air Pollution Rule, as well as more stringent NAAQS, especially the NO₂ and SO₂ NAAQS. These rules will continue to improve visibility across the U.S. and demand significant resources at all levels.

IMPROVE

While we applaud EPA in its attempt to minimize the cost of expanding a monitoring network for a proposed secondary visibility standard, we believe that using the Class I area IMPROVE network to assess attainment with a secondary visibility standards is inappropriate. As noted in both CASAC reviews and in EPA's own analysis, there are shortcomings in using a particulate based metric for a perception-based visibility standard.

If EPA intended to establish a bright line visibility standard where impairment above the standard is not acceptable, while impairment below the standard is acceptable, then the methodology of the standard does not achieve that goal because it is not measuring what is observed by individuals. Instead the method uses average humidity and a reconstructed visibility measurement calculated from PM_{2.5} speciation filter analysis. The deciview metric is appropriate in the regional haze context where the goal is to measure progress rather than to establish a bright line as proposed.

Furthermore, as EPA notes in the preamble "As in past reviews, the EPA is also considering that the secondary standard would focus on protection from visibility impairment principally in urban areas in conjunction with the regional haze program that is focused on improving visibility in Federal Class I areas" [77 FR 38969]. The vast majority of monitoring locations in the West that EPA proposes to rely upon in determining the attainment status with the secondary visibility standard are in areas distinctly different than the 'primarily urban' focus of the proposed standard.² In an analysis intended to "bridge the gap" between the secondary

² The term "urban visibility" is used to refer to VAQ throughout a city or metropolitan area. Urban visibility includes the VAQ conditions in all locations that people experience in their daily lives, including scenes such as residential streets and neighborhood parks, commercial and industrial areas, highway and commuting corridors, central downtown areas, and views from elevated locations providing a broad overlook of the metropolitan area. Thus urban visibility includes VAQ conditions in major cities and smaller towns and encompasses all the VAQ an individual resident sees on a regular basis. Visibility conditions in urban and suburban locations are therefore distinct from visibility in rural or wilderness settings such as the Class I areas defined by the Clean Air Act, which include NPs and similar natural settings. Integrated Science Assessment for Particulate Matter. p.9-66. EPA/600/R-08/139F. December, 2009.

visibility science and policy judgment, EPA concludes that “a new secondary standard would apply to all non-Class I areas of the country.”³

In fact, the vast majority of locations in the West for which EPA proposes to rely upon monitoring to assess attainment/non-attainment with the proposed secondary standard are in remote national park and wilderness area-oriented locations. Among the 15 WESTAR states there are more than twice as many IMPROVE monitors as urban speciation (CSN) monitors. In Washington State for example, there are two urban monitors in Seattle (one CSN and one IMPROVE) and six IMPROVE monitors in or near national parks or wilderness areas in the state. Nonattainment areas are defined in the Clean Air Act relative to “violating monitors and nearby sources.” Violating monitors in the IMPROVE network, being remote from urban areas would create largely rural nonattainment areas, contrary to EPA’s stated purpose of an urban focused visibility standard.

Finally, the WESTAR states are concerned about the lack of control of the IMPROVE sites, the absence of a designation as a reference method⁴ and the lack of control over the data. Data reporting lag times also presents problems for examining and documenting exceptional events. There are other monitoring related concerns as well.⁵

In summary, we believe EPA should use the time over the next several years to examine the basis for assigning welfare benefits of representative samples of the U.S. population and quantify those benefits. EPA should also more rigorously examine the relationship between the Clean Air Act section 169 regional haze programs and any marginal benefits that may be achieved through a separate visibility standard. Finally, EPA should recognize that the Class 1 area IMPROVE monitoring network is inappropriate in a primarily urban visibility protection program.

If you have any questions or require further clarification of our comments, please contact WESTAR Executive Director Dan Johnson at 206.254.9145.

Sincerely,



Greg Remer, President
WESTAR Council

³ Particulate Matter Urban-Focused Visibility Assessment. Final Document, July, 2010. EPA 452/R-10-004.

⁴ Neither IMPROVE nor CSN are reference methods, a departure from relying on Federal reference methods when making attainment/non-attainment decisions.

⁵ Concerns include: the appropriate use of equations with estimated factors in a calculated light extinction in attainment determinations; reliance on average relative humidity, especially at different elevations; A form of the standard averaged over only three years that will not account for western drought and fire cycles. See also: Integrated Science Assessment for Particulate Matter. p.2-27. EPA/600/R-08/139F. December, 2009, which delineates the advantages of other monitoring methods and the shortcomings of IMPROVE/CSN including uncertainties associated with assumed scattering and absorption efficiencies and time resolution.