

# MANE-VU

## Mid-Atlantic/Northeast Visibility Union

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January 11, 2002

Lara P. Autry  
United States Environmental Protection Agency  
Office of Air Quality Planning and Standards, C304-02  
Research Triangle Park, NC 27711

Re: Comments on *Draft Guidance for Tracking Progress Under the Regional Haze Rule* and *Draft Guidance for Estimating Natural Visibility Conditions Under the Regional Haze Rule*

Dear Ms. Autry:

The Mid-Atlantic/Northeast Visibility Union (MANE-VU) appreciates the opportunity to comment on *Draft Guidance for Tracking Progress Under the Regional Haze Rule* and *Draft Guidance for Estimating Natural Visibility Conditions Under the Regional Haze Rule*, which were released on October 2, 2001 and announced in the *Federal Register* on December 12, 2001. MANE-VU is a regional planning organization (RPO) recently formed to support the planning efforts of its members as they prepare to comply with visibility requirements under the regional haze rule [64 Fed. Reg. 35714 (July 1, 1999)]. The organization's membership includes: Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, the Penobscot Indian Nation, Rhode Island, the St. Regis Mohawk Tribe, Vermont, as well as federal land management agencies and the U.S. Environmental Protection Agency (EPA).

The guidance documents released by EPA represent an integral part of a long term effort to reduce the emissions of visibility impairing pollutants that affect the MANE-VU Class I areas. Emissions of sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOC) and particulates from a range of sources are a major concern to the States and Tribes charged with remedying visibility impairment in the Mid-Atlantic and Northeast regions. The sulfate and nitrate fractions of particulate matter (PM) are of special concern due to sulfate's significant contribution to visibility impairment in the MANE-VU region and nitrate's complex chemical interactions that may reduce the effectiveness of SO<sub>2</sub> focused control strategies. Thus, it is imperative that strong controls for SO<sub>2</sub> and NO<sub>x</sub> be implemented quickly and simultaneously.

While the regulatory driver for the regional haze rule is the protection of visibility in Class I areas, it is important to note that the derived visibility benefits, which result from the implementation of these regulations, will be experienced across the entire MANE-VU region. The economic and quality of life benefits of improved visibility will be broadly shared by the public, whether living near or visiting a rural national park, or enjoying an improved skyline in urban locations.

In addition to visibility benefits, the substantial reductions of visibility impairing pollutants achievable through the regional haze rule will also produce significant public health benefits by reducing the incidence of cardiac and respiratory disease linked to fine particle pollution. Haze controls will also reduce acid deposition and attendant acidification of soils and forests. Finally, these reductions will prevent further destruction of sensitive aquatic ecosystems through both acidification and eutrophication.

The guidance for tracking progress and estimating natural conditions will serve as the set of procedures by which States and Tribes measure their impact on visibility and, in turn, determine their role in the other air quality and non-air quality effects associated with visibility. MANE-VU recognizes that many of the specific technical issues addressed in these guidance documents have inherent uncertainties, however, we also recognize that the precision of methodologies for tracking progress and estimating natural conditions will improve in future years when the effects of these uncertainties are likely to be more pronounced. MANE-VU offers several specific comments relating to the guidance documents below. Specific excerpts are listed in ***bold italics*** followed by MANE-VU comments.

**1. *Tracking Progress: §1.2 (Pg. 1-3); Estimating Natural Conditions: §1.3 (Pg. 1-3), “This guidance is a living document and may be revised periodically without public notice.”***

Since these guidelines set the methodology by which visibility progress is measured, it does not serve the public interest to change these methods arbitrarily and without notice. MANE-VU recommends that if revisions to the guidance are necessary, EPA should provide for public notice and comment.

**2. *Tracking Progress: §1.7 (Pg. 1-7), “In their initial SIPs, States are required to ...”***

Please be specific about which SIP submission is considered the “initial” SIP. States are required to submit “committal SIPs” prior to 2008 that may be confused with the SIP to which this passage refers.

**3. *Tracking Progress: §1.7 (Pg. 1-7); Estimating Natural Conditions: §1.7 (Pg. 1-6) “Specifically, a State is required to set progress goals for each Class I area in the State...”***

MANE-VU feels that the guidance should strongly emphasize that the process of setting these progress goals is intended to be a cooperative activity handled through the regional planning process. However, MANE-VU is also concerned that mechanisms do not exist within the currently defined RPO process for developing consensus on reasonable progress goals and control options between States in different RPOs. EPA should provide additional detail on this process.

**4. *Tracking Progress: §1.11 (Pg. 1-10); Estimating Natural Conditions: §1.9 (Pg. 1-10), “After the initial SIPs are approved, States will conduct formal progress reviews (in the form of a SIP revision) every 5 years (e.g., in 2013 if the initial SIP is submitted in 2008).”***

MANE-VU requests clarity on whether the 5-year time frame is relative to SIP submission or SIP approval. We are concerned that delays to the SIP approval process could lead to a compressed timeframe for conducting formal progress reviews.

- 5. *Tracking Progress: §1.11 (Pg. 1-11); Estimating Natural Conditions: §1.9 (Pg. 1-10), “If the lack of progress is primarily due to emissions from within the State, then the State may need to revise its implementation plan within 1 year...”***

One year is not sufficient time for some jurisdictions to complete a SIP revision, as this process may entail public notification, hearings and submission of documents to regional EPA offices for approval. Past experience suggests that this process could take several years. EPA should clarify if this applies to all States or just those with Class I areas.

- 6. *Tracking Progress: §1.11 (Pg. 1-11); Estimating Natural Conditions: §1.9 (Pg. 1-10), “If the lack of progress is primarily due to emissions from outside the State then the State may need to reinitiate the regional planning process to address this problem in the next major SIP revision (e.g., in 2018).”***

MANE-VU requests clarification as to the scope of “reinitiating” the planning process. Does EPA intend to repeat all of the regional haze planning efforts that are being conducted for 2008 SIP submission every 5 years?

- 7. *Tracking Progress: §2.2 Step 3(Pg. 2-5), “Using at least one complete quarter, and preferably all five of the same quarters from a five year period immediately prior to the year under consideration...”***

This implies that States or regions will have the option of deciding how many quarters of complete data to include in calculating an average value. MANE-VU recommends that the language be changed to read, “Using all complete quarters from the five year period immediately prior to the year under consideration, unless a substantive argument is presented for exclusion of a quarter...”

- 8. *Tracking Progress: §2.2 Step 3(Pg. 2-5), “...the quarterly average concentrations are determined for each variable for which one or more data points were found to be missing in Step 2.”***

EPA should specify how quarters are distributed throughout the year (e.g., Is winter December-February or January-April?).

9. *Tracking Progress: §2.2 Step 4 (Pg. 2-5), “It is recommended that the f(RH) factors used be site-specific, and be associated with monthly, rather than (e.g.) seasonal or annual time frames.”*

and

*Tracking Progress: §3.6 (Pg. 3-12), “To assess the changes in manmade pollution contributions to visibility impairment, it is appropriate to use relative humidity that is the same for the baseline period and future periods with changed emissions. In other words, it is more important to eliminate the confounding effects of interannual variations in relative humidity, while maintaining typical regional seasonal humidity patterns.”*

MANE-VU supports the use of site-specific climatological mean monthly values of the relative humidity adjustment factor. While this is not the most scientifically accurate method for determining true visibility conditions in Class I areas, we feel it offers a practical and effective means of measuring progress that is meaningful to an emissions control program.

10. *Tracking Progress: §2.2 Step 5 (Pg. 2-6), “This step in the overall process requires several steps in itself, as described below”*

This procedure for determining whether average values may be substituted or not is overly complex. Could the procedure be simplified by simply substituting average values when the monitored data is unavailable? If there is a demonstrated benefit to using the procedures described in step 5, these benefits should be discussed and referenced in the guidance.

11. *Tracking Progress: §2.2 Step 7 (Pg. 2-9), “However, if maximum data recovery is not achieved, EPA believes that a minimum of 3 years of data meeting these completeness requirements is needed to calculate the 5-year averages within a 5-year period.”*

and

*Tracking Progress: §4.3 (Pg. 4-2), “Within any specified five-year period, there should be at least three complete years of data from which annual averages are drawn for this calculation of five-year averages.”*

Allowing States or regional planning organizations to base calculations on less than five-years worth of data for calculating five-year averages goes against national consistency, as progress goals for some Class I areas will be set based upon a different time period than is used for others (e.g., 2000-2004 versus 2002-2004). However, recognizing that not all Class I areas will have five complete years of data on which to base an average, MANE-VU recommends maintaining the three year minimum requirement, but clearly stating that *all* complete years of monitoring data must be used, if available.

- 12. Tracking Progress: §2.3 (Pg. 2-10), “Thus it is reasonable to include the highest 20% deciview readings from an incomplete year, if those values increase the five year average of the highest 20% of deciviews, relative to that based on complete years only. For similar reasons, it is also appropriate to include the lowest 20% of deciview readings from an incomplete year, if those values decrease the five-year average for the lowest 20% of deciviews, relative to that based on complete years only.”**

MANE-VU supports the use of incomplete data under these specific circumstances, however a demonstration of the benefit of using this procedure should be included or referenced in the guidance documents. To encourage national consistency, we feel that language from this passage should be revised slightly. The words “reasonable” and “appropriate” should be replaced with “recommended.”

- 13. Tracking Progress: §4.3 (Pg. 4-2), “These averages over the 2000-2004 time period are the basis against which improvements in visibility are judged. Corresponding averages are to be calculated over successive five-year periods, i.e. 2005-2009, 2010-2014, etc.”**

The tracking progress guidance appears to be inconsistent regarding specifically which time periods are to be averaged for calculating visibility conditions in order to track progress. Early in the guidance document (pg. 1-11) it is stated that, “Progress will be reviewed for each Class I area by comparing ‘current’ conditions to the 2000-2004 baseline value to determine whether air quality improvements are consistent with the progress goals established in the SIP.” Assuming that the definition of “current conditions” provided on pg. 1-13 of the guidance is intended here, MANE-VU supports this procedure for tracking progress. However, in §4.3 of the guidance, it appears that EPA intends to consider only ‘successive’ five-year periods as described in the above example. MANE-VU recommends that EPA allow for the use of current conditions in tracking progress based on the most recent five years of available data rather than data from specified time periods.

- 14. Estimating Natural Conditions: §1.15 (Pg. 1-16), “No, States cannot use the development of a refined estimate of natural visibility conditions as a reason for delaying the submittal of regional haze control strategy SIPs required by statute and regulation. EPA believes the default approach to estimating natural visibility conditions presented in this document is adequate for the development of progress goals for the first implementation period under the regional haze rule.”**

MANE-VU supports EPA’s position with respect to this issue.

- 15. Estimating Natural Conditions: §2.6 (Pg. 2-7), “...the default approach provides only an estimate of the annual average natural background dv, and the averages for the best and worst 20% must be estimated.”**

MANE-VU strongly supports the use of estimation techniques to identify appropriate values for 20 percent best and 20 percent worst visibility conditions. Recognizing that a range of natural visibility conditions exists and accounting for that range will be crucial to designing effective control strategies.

**16. *Estimating Natural Conditions: §3.4 (Pg. 3-3), “States wishing to employ a refined approach should supply technical demonstrations that the refined approach provides improved site-specific or regional natural visibility estimates, relative to the default approach.”***

MANE-VU is concerned that the refined approach presents an opportunity to relax requirements for visibility improvements and recommends that EPA require strong technical demonstrations before accepting any refined approaches which lead to higher estimated natural deciview levels relative to those obtained through the default approach.

**17. *Definition of “relative humidity” in Glossary of Terms in the draft guidance documents.***

The word “saturated” is missing. The definition should be, “Partial pressure of water vapor at the atmospheric temperature divided by the saturated vapor pressure of water at that temperature, expressed as a percentage.”

Thank you for the opportunity to comment on these issues.

Sincerely,



Christopher Recchia  
Commissioner,  
Vermont Department of Environmental Conservation  
Chair,  
Mid-Atlantic/Northeast Visibility Union

cc: John Seitz, U.S. EPA  
David Mobley, U.S. EPA