

Summary of Stakeholder Comments on the Reasonable Progress Modeling Draft Report

January 29, 2008

The draft report entitled, “*MANE-VU Modeling for Reasonable Progress Goals*” was completed by NESCAUM on December 10, 2007. On December 12, 2007, MARAMA requested comments from MANE-VU Stakeholders by January 9, 2008. Six stakeholders have commented on the document and their comments are summarized below. Comments were received from the following: the Council of Industrial Boiler Owners (CIBO) via John Woolf of Bracewell and Giuliani LLP, Dominion Resources Services, Inc., Midwest Ozone Group (MOG) via Edward Kropp of Jackson Kelly PLLC, John Shimshock of Reliant Energy, Inc., Utility Air Regulatory Group (UARG) via Andrea Field of Hunton and Williams, and MARAMA via Angela King.

Comments

UARG stated that it is not necessary or appropriate for MANE-VU to ask other states to change course now to include additional control measures in their regional haze SIPs, especially since these regulatory requirements come up very late in the regional haze state implementation plan (SIP) development process. Existing measures and other measures included in the state plans that have been drafted or proposed for comment are adequate (and, in some cases, more than adequate) to achieve visibility improvements approaching or going beyond the uniform rate of progress for their own and other states’ Class I areas. In these circumstances, neither the Clean Air Act nor EPA’s rules and guidance would require states to include additional control measures in their regional haze SIPs. The fact that MANE-VU claims that additional “measures are reasonable to implement” (Draft RPG Modeling Report at 6-1) does not change anything: no EPA rules or guidance requires other regional planning organizations at this late date to revise their draft or final regional haze plans to address or incorporate the list of additional control measures included in the draft MANE-VU reports.

MOG stated that requiring the implementation of control strategies that result in visibility improvement beyond the improvement necessary to meet the uniform glide slope is neither necessary under the Regional Haze Rule nor an efficient use of resources. MOG therefore urges MANE-VU to accept the benefits of on the books control strategies, many of which not yet fully implemented and that result in attainment of reasonable progress as defined by EPA, rather than continue to press for implementation of additional control strategies that are simply unnecessary to comply with the Regional Haze Rule and, more importantly, strain an already unstable economy. CIBO agrees with MOG, stating controls beyond those required to meet already stringent standards is neither justified by applicable law, nor by the significant additional burden on sources that will result. Sources have made significant capital investments to meet mandatory measures and the resulting environmental benefits will likewise be significant.

Reliant stated that further emission reductions beyond “on-the-books/on-the-way” regulations are unnecessary for achieving the 2018 regional haze rule milestones. Before any further emission reductions are mandated, Reliant Energy recommends that U.S. EPA plan a comprehensive assessment of the effects on measured visibility of the first Regional Haze Rule implementation period and a reassessment of model performance at that time.

Dominion noted that all Class I areas within the MANE-VU region will achieve significant visibility improvements beyond the uniform glide path by 2018. Therefore emission reduction measures already in progress or that will be implemented to meet CAIR and other regulatory requirements are sufficient and in fact exceed requirements to demonstrate reasonable progress under EPA’s Regional Haze Regulation.

Dominion also stated that while the MANE-VU analysis accounts for and captures projected visibility improvements from source-specific BART requirements in the Northeast region, it does not account for the potential impact of BART-specific reductions in neighboring regional planning organizations (RPOs) that could provide some additional level of visibility improvement in MANE-VU Class I areas.

Dominion questions whether MANE-VU is justified in determining from a broad-based perspective that a 90 percent sulfur dioxide (SO₂) reduction for all electric generating units (EGUs) identified as affecting visibility in the MANE-VU region is reasonable under the reasonable progress provisions of the regional haze rules. Furthermore, sources already subject to BART are in the process of completing the required BART analysis, which encompasses an assessment of the same factors that must be addressed in establishing reasonable progress. Thus, any source that has already been subject to a BART determination assessment should be exempt from any further requirements. EPA implies this conclusion in its final guidance, observing that it is not necessary for states to reassess the reasonable progress factors for sources subject to BART for which the states have already completed a BART analysis (*EPA Guidance for Setting Reasonable Progress Goals Under the Regional Haze Program*, June 1, 2007, page 5-1).

Dominion noted that several of the EGUs identified by MANE-VU as “most likely to affect” visibility in certain Class I areas within the MANE-VU region are owned and operated by Dominion. Specifically, Mt. Storm Units 1-3, Chesterfield Units 4-6, Chesapeake Energy Center Units 3 and 4, Yorktown Units 1-3, Brayton Point Units 1-3, and Salem Harbor Units 1-3.

Dominion stated it is already implementing an aggressive emission reduction control program across its fossil generation fleets in the Mid-Atlantic, New England, and Midwest regions. This program includes the very sources identified in the MANE-VU list of 167 “select” EGUs. For more information on the controls and the specific facilities and units see the Dominion comment.

Dominion does not believe that the implementation of a “blanket” control strategy across a select list of sources that are either already taking measures to reduce emissions under

CAIR or already undertaking BART analyses is needed to demonstrate reasonable progress. According to Dominion, as the MANE-VU modeling analysis clearly shows, existing and planned programs already “on-the-books” and “on-the-way” will achieve progress beyond the requirements identified in the uniform glide paths the states have already set for Class I areas.

Reliant is concerned that MANE-VU’s base year 2002 inventory is different from emissions estimates originally submitted to the states by industrial facilities. They stated that some estimates of sulfur dioxide, nitrogen oxides (NO_x), and fine particulate matter (primary PM_{2.5}) emissions in the future year inventories appear to be implausible. Reliant would welcome the opportunity to work with MANE-VU and NESCAUM to develop a mutually-agreeable 2002 emission inventory for their facilities and to investigate and critically review the assumptions used to develop the future year’s inventories. With regards to the future year inventories, Reliant Energy understands that these do not incorporate recent New Source Review settlements that have specified the installation of control equipment and the permanent retirement of allowances which would be made available through the operation of this emissions control equipment.

Reliant stated that results from various future year model runs are presented in the report and in several instances, the conclusions deduced by NESCAUM do not appear to be supported by the model runs.

Section 1

Reliant stated that a critical review of the 2009 and 2018 projected emissions inventories needs to be performed. Reliant asserts that a 153 percent and a 360 percent increase in PM_{2.5} emissions in 2009 from New Jersey and Pennsylvania EGUs, respectively, is implausible considering that emissions of SO₂ and NO_x are predicted to decrease by at least 45 percent.

Section 2

Reliant stated that poor modeled meteorological performance during the summer period has significant implications for conclusions regarding source attribution for regional haze impacts.

Reliant stated that some of the figures presented in the report have best fit lines drawn in that do not appear to match the line one would eyeball that would pass through the peak values. Since the peak values are most important in determining the trend of the worst 20 percent regional haze days, it makes sense to reconsider the best-fit lines for this purpose. These alternative slopes lead to conclusions that the CMAQ model’s peak predictions are too high (i.e., the model is over-responding, especially on the worst 20 percent regional haze days), and can result in a conclusion that certain emission components have an exaggerated effect on visibility.

Section 3

Reliant stated that the issue of how natural background is determined for the PSD Class I areas should be re-evaluated. The report indicates that ammonium sulfate is identified as the largest contributor to haze at MANE-VU Class I areas and virtually all ammonium sulfate is assumed to be the result of man-made emissions. However, the contribution of natural biogenic sources of ammonia, organic carbon, and sulfates may not be properly considered in the determination of naturally-occurring background visibility.

Section 5

Reliant stated that there may be double-counting of benefits with the “167 EGU Strategy.”

Reliant stated that all the control strategies tested result in insignificant changes in PM_{2.5} concentrations, even though the report mentions that the 167 EGU emission reductions will result in “significant reductions.”

Reliant stated that the projected rates of visibility improvement do not appear to account for SO₂ and NO_x emission reductions required under Phase II CAIR.

Reliant stated that for the “167 EGU Strategy,” there are apparent inconsistencies between the average change in 24-hour PM_{2.5} concentrations and projected visibility improvement at selected Class I areas located in the northern NESCAUM states.

Reliant stated that there are insufficient details regarding the modeling runs, such as those conducted under the reduced sulfur fuel content control strategy. The details of emissions inputs to all of the modeling runs described in the report need to be made available to the public.

Minor Changes

MARAMA pointed out that on page 1-3, footnote number 3 should be moved to page 1-2.

MARAMA stated that on page 1-11, the password for the MARAMA ftp site needs to be included so that the MANE-VU inventory can be accessed. The password is “exchange.” Please make this change throughout the document (i.e. page 1-12, regarding MRPO’s BaseK inventory).

MARAMA stated that on page 1-15, the password for the second MARAMA ftp site needs to be included so that the CENRAP point source inventory can be accessed. The password is “emisdata.” Please make this change through the document.

MARAMA noted that on page 1-19, sub-section 1.3.5, in number 5, the word “into” should be change to “in.”

MARAMA noted that after page 1-21, the page numbers are inconsistent (i.e. chapter 2 begins with page 2-22, in chapter 2 page 28 does not have a chapter number, section 2.2 starts on page 2-1, section 3 begins with page 3-10, etc).

MARAMA stated that at the bottom of page 2-2, the second to last paragraph is repeated.

MARAMA stated that on page 2-3, Figures 2-16 and 2-17 are numbered incorrectly.

Reliant stated that in section 4, results from both CMAQ and REMSAD are shown, but there is little discussion regarding the consistency of these modeling results.

Reliant stated that section 4 says that an important “region” for Acadia especially is “SE_BC”, but the meaning of this term and others in the figures needs more explanation.