United States Department of the Interior

NATIONAL PARK SERVICE
Air Resources Division
P.O. Box 25287
Denver, CO 80225

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IN REPLY REFER TO:

March 18, 2010

N3615 (2350)

Ms. Cecily Beall
Associate Director
Air Quality Division
D.C. Department of the Environment
51 N. Street, NE 6th Floor
Washington, D.C. 20002

Dear Ms. Beall:

In November 2009, the District of Columbia submitted a draft implementation plan describing your proposal to improve air quality regional haze impacts at mandatory Class I areas across your region. We appreciate the opportunity to work closely with the District through the initial evaluation, development, and, now, subsequent review of this plan. Cooperative efforts such as these ensure that, together, we will continue to make progress toward the Clean Air Act's goal of natural visibility conditions at all of our most pristine National Parks and Wilderness Areas for future generations.

This letter acknowledges that the U.S. Department of the Interior, U.S. Fish and Wildlife Service (FWS), and National Park Service (NPS) have received and conducted a substantive review of your proposed Regional Haze Rule implementation plan in fulfillment of your requirements under the federal regulations 40 CFR 51.308(i)(2). Please note, however, that only the U.S. Environmental Protection Agency (EPA) can make a final determination regarding the document's completeness and, therefore, ability to receive federal approval from EPA.

As outlined in a letter to each State dated August 1, 2006, our review focused on eight basic content areas. The content areas reflect priorities for the Federal Land Manager agencies, and we have enclosed comments associated with these priorities. We look forward to your response, as per section 40 CFR 51.308(i)(3). For further information, please contact Holly Salazer (NPS) or Tim Allen (FWS) at (814) 865-3100 and (303) 914-3802, respectively.

Again, we appreciate the opportunity to work closely with the District of Columbia and compliment you on your hard work and dedication to significant improvement in our nation's air quality values and visibility.

Sincerely,

Christine L. Shaver
Chief, Air Resources Division
National Park Service

Sincerely,

Sandra V. Silva
Chief, Branch of Air Quality
U.S. Fish & Wildlife Service

Enclosure

cc:
Jackie Lewis
Air Programs
U.S. EPA Region 3
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

District of Columbia
Draft Implementation Plan for Regional Haze

Preliminary Comments from Department of the Interior
March 18, 2010

General Comments

The District of Columbia (District) Implementation Plan for Regional Haze is based on technical analyses developed by MANE-VU. The document includes thorough discussions of the regulatory requirements for the contents of the implementation plan. The document extensively cites the MANE-VU technical analyses. However in several instances, the document lacks sufficient technical detail to support the conclusions, referring the reader to MANE-VU project reports for explanations of assumptions key to the results. Additional descriptions are requested on assumptions used in the emissions inventories, establishing visibility baseline, air quality model performance, and state contributions to visibility impairment as discussed below.

Significantly, the document is missing the required Best Available Retrofit Technology (BART) analysis. The document is also missing the four-factor analysis of potential emissions control options that is required as part of the Reasonable Progress analysis.

Comments by Sections

Figure 1.1. Include Class I areas in NH, VT and ME on the map as impacts at these Class I areas are discussed in subsequent sections.

Section 3.3.1 States Notifying the District of Contribution to Haze. The final paragraph of this section states that District's contributions to MANE-VU and VISTAS Class I areas would be "...summarized below." However, there is no contribution summary in Chapter 3. Please include in this section or highlight which chapter such a summary is available.

Section 4 Emissions Inventory
This section describes 2002 base year emissions and 2018 future year emissions projections for the District and for MANE-VU states. These emissions data are used in MANE-VU air quality modeling (described in Section 6) to evaluate the District's contribution to visibility impairment in nearby Class I areas. It is important that the assumptions used in these inventories are clearly defined.

Section 4.1.2 defines the MANE-VU "best and final" 2018 inventory as "developed to account for additional control measures considered as part of the development of the MANE-VU regional long-term strategy." If this represents the emissions reductions that MANE-VU refers to as the "Ask", please make that clear. It is important to define which of the additional control measures are being implemented as enforceable control measures and which are future goals that have not been enacted. Specifically, please clarify which of the control measures included in the 2018 "best and final" MANE-VU inventory in Table 4.3 have been implemented in the District.

Section 4.3.1, Tables 4.1, 4.2, and 4.3:
Please explain the basis for the 76% reduction in SO_2 emissions for the EGU point source category for the District between 2002 and 2018 On the Books/On the Way. Is this a BART source? What control technologies have been assumed by 2018? Please explain if the controls assumed in the On the Books/On the Way inventory have been implemented in the District.

Please explain the basis for differences between the 2018 On the Books/On the Way inventory and the 2018 Final inventory for the District. What controls were assumed to reduce the District's area source SO_2 emissions by 90% and non-EGU point source SO_2 by 30% between the On the Books/On the Way and the Final 2018 inventory versions? The document should specifically cite the emissions control measures taken by the District. If the emissions changes documented in Tables 4.3 are illustrating potential emissions reductions rather than enacted control measures, this should be clearly described in the text. Please revise Tables 4.2 and 4.3 so that the order of presentation of emissions sectors is consistent, currently the order of area source sector differs between the two tables.

Please explain the basis for reductions in the MANE-VU regional 2018 emissions in Tables 4.6 (2018 On the Books/On the Way) and 4.8 (2018 Final Emissions Inventory). Are these reductions the same as the MANE-VU "Ask"? Please explain if the emissions reduction measures included in these tables have been implemented. MANE-VU used the Final 2018 inventory as the basis for air quality modeling to define visibility improvements by 2018. Therefore, it is important to understand the extent that reductions beyond On the Books/On the Way will be implemented.

Anthropogenic VOC emissions are only partially relevant to fine particulate mass because many of the anthropogenic volatile organic compounds do not react to form particles. It would be more helpful to report in Tables 4.1 to 4.9 primary organic carbon and primary elemental carbon emissions. Same comment for Figure 6.7.

Section 4.3.2 Emissions from the District Compared to MANE-VU Emissions
The final statement of this section includes the conclusion that the District contributes 0.1% to 0.3% of the SO_2 emissions in the MANE-VU region. We recommend further language to explain why this conclusion is important to the overall consultation process and development of the District's long-term strategy (i.e., linking the emission inventory results with the MANE-VU decision that consultation take place among those states that contribute at least 2% SO_2).

Section 5.0 Air Monitoring Strategy
The District should include language that commits the District to continuing to support ongoing visibility monitoring in Class I areas. Currently, the IMPROVE network meets this monitoring goal. Support, in this context, means the District agrees IMPROVE is an appropriate monitoring network to track regional haze progress and that the District agrees to work with neighboring states and FLMs in meeting the goals of the IMPROVE program.

In Section 5.1, the third paragraph describes the baseline visibility conditions as the 20 percent most impaired days and the 20 percent least impaired days for the baseline period 2000-2004. To define the pollutants contributing to visibility impairment, the District should include charts illustrating aerosol composition for IMPROVE monitors in Class I areas nearest the District (e.g., Shenandoah National Park, Dolly Sods Wilderness Area, Brigantine Wildlife Refuge) on the 20% worst and 20% best days in 2000-2004. These data can be found on the VIEWS website at: http://views.cira.colostate.edu/web/Composition/

Section 5.2 is an abbreviated description of the air quality models that were used in the MANE-VU visibility assessment. The SIP should include the model performance evaluations for these models to demonstrate that the models have appropriate skill for the intended application. At a minimum, the SIP should cite the specific location in the referenced documents where this information is provided. Because the District's emissions are a very small fraction of total emissions in the MANE-VU region, these models are adequate to demonstrate the District's relative contribution to visibility impairment, as described in Section 6.

In Section 7, we recommend including the June 7, 2007, statement that was approved by all MANE-VU member states.

In Section 8, the District should state whether it supports the reasonable progress goals set by the Class I states, including those set by Virginia and West Virginia through the VISTAS process.

Section 9: The BART determination is missing. The District's Implementation Plan is not complete without the required BART analysis. Please provide an opportunity to review and comment on the draft BART determination as soon as practical. We will then review the BART analysis and submit follow-up comments as necessary.

Section 10: Long-Term Strategy
Figure 10.2 is confusing because several of the Class I areas identified in the map are not in MANE-VU states. We recommend you delete this figure. The brief paragraph above the map correctly reports that impacts from wood smoke at MANE-VU Class I areas are likely due to emissions from MANE-VU states. Were emissions strategies to reduce wood smoke considered?

A common concern for SIPs submitted by the MANE-VU states is the modeling results that are used to evaluate progress are based on different emissions assumptions for MRPO and VISTAS states than the emissions assumptions made by those states in their implementation plans. As a result, regional model projections for MRPO and VISTAS differ from projections made by MANE-VU. Section 10.9 cites VISTAS results for Dolly Sods, but MANE-VU results for Shenandoah. Please use the rate of progress results for Dolly Sods and Shenandoah that are used by WV and VA in their respective State Implementation Plans rather than the MANE-VU results for these sites. Or if you chose not to use these states' results, please explain the basis for your decision.

It is important to include in Section 10 the specific measures that the District has taken to implement the MANE-VU recommendations for emissions management.

As part of the Reasonable Progress demonstration, the regional haze rule requires a four-factor analysis of potential emissions reduction options. The District should cite the MANE-VU Four Factor Report and define which of the source categories in the MANE-VU report are represented in the District's inventory. The District should evaluate potential SO_2 emissions reduction options for non-EGU point sources and area sources in the District, for instance low sulfur fuel oil.

We also recommend in order to satisfy the verification requirements of the regional haze rule, that the District commit to using the five-year review to look at where the District is in terms of emission projections. In the five-year review, if the District is not meeting projections, a SIP revision would be triggered allowing the FLMs and the public to review how the District plans on meeting projections.

It is critical for each MANE-VU member agency to commit to the goal of improving visibility. This includes the need to evaluate and link all District programs as a whole, such as regional haze planning and other District permitting programs, such as New Source Review (NSR) and Prevention of Significant Deterioration (PSD). For example, it is important to consider projected emission growth under NSR and PSD and how that may impact regional haze and reasonable progress goals.