

January 10, 2022

Connecticut

Delaware

District of Columbia

Maine

Maryland

Massachusetts

New Hampshire

New Jersey

New York

Pennsylvania

Penobscot Indian Nation

Rhode Island

St. Regis Mohawk Tribe

Vermont

Mr. Todd Shrewsbury
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

*RE: West Virginia Regional Haze State Implementation Plan (SIP) Revision
for the Second Planning Period, December 2021*

Dear Mr. Shrewsbury:

The Mid-Atlantic/Northeast Visibility Union (MANE-VU) appreciates the opportunity to comment on the West Virginia Department of Environmental Protection (WVDEP), Division of Air Quality's proposed Regional Haze State Implementation Plan for the Second Implementation Period dated December 2021 (hereinafter, the WVDEP RH SIP). MANE-VU is the regional visibility planning organization of the air agencies in the Mid-Atlantic and Northeast. MANE-VU consists of eleven states, two tribal nations, and the District of Columbia. It coordinates regional haze planning activities to help its members reduce visibility impairment at Class I areas in the MANE-VU region in furtherance of achieving the national visibility goals of EPA's Regional Haze Rule (RHR). To facilitate reasonable progress in visibility protection at its own Class I areas, and at all Class I areas throughout the U.S., MANE-VU is providing comments on the WVDEP RH SIP.

The WVDEP RH SIP is of interest to MANE-VU because West Virginia emissions were identified by MANE-VU to significantly contribute to visibility impairment at Class I areas in the region. MANE-VU consulted with West Virginia and other states identified as "contributing" and West Virginia was included in the list of states receiving the MANE-VU Inter-RPO "Ask" for contributing states.¹ The West Virginia response and resolution to this Ask must be described in its regional haze SIP for review and action by EPA and Federal Land Managers (FLMs) prior to approval. MANE-VU's comments below relate to meeting the MANE-VU Inter-RPO Ask. Additional comments on the WVDEP RH SIP are provided following the Inter-RPO discussion.

MANE-VU Class I Areas

Acadia National Park
Maine

Brigantine Wilderness
New Jersey

Great Gulf Wilderness
New Hampshire

Lye Brook Wilderness
Vermont

Moosehorn Wilderness
Maine

Presidential Range
Dry River Wilderness
New Hampshire

Roosevelt Campobello
International Park
Maine/New Brunswick,
Canada

¹ *Statement of the Mid-Atlantic/Northeast Visibility Union (MANE-VU) States Concerning a Course of Action in Contributing States Located Upwind of MANE-VU Toward Assuring Reasonable Progress for the Second Regional Haze Implementation Period (2018-2028)*, August 25, 2017 (available at <https://otcair.org/manevu/document.asp?fview=Formal%20Actions>).

MANE-VU Ask

MANE-VU's technical analysis identified haze-impairing emissions from West Virginia and other upwind states as reasonably anticipated to contribute to visibility impairment at MANE-VU Class I areas. Based on this analysis, MANE-VU developed a "MANE-VU Ask" that was sent to West Virginia and the other identified states with five requests for consideration during the upwind states' second regional haze SIP planning effort. MANE-VU is now providing below our overarching perspective on how well West Virginia's RH SIP addresses each of these requests. MANE-VU makes note of the past and future EGU retirements and emission reductions mentioned in Section 7 of the WVDEP RH SIP. Nevertheless, MANE-VU respectfully requests that its Ask items be addressed in the WVDEP RH SIP as described in the comments that follow.

Ask #1: EGUs \geq 25 MW with installed controls, ensure that controls are run year round.

West Virginia does not include how it addressed MANE-VU Ask #1 in the WVDEP RH SIP. West Virginia referenced its comments on the New Jersey and New Hampshire proposed Regional Haze SIPs.

West Virginia states on page 3 of its comments on New Jersey's Regional Haze SIP that all permitted and operating coal-fired EGUs within West Virginia with nameplate capacity greater than or equal to 25 MW are equipped with NO_x and SO₂ controls that are required by their respective federally enforceable Title V Operating Permits to be operated year-round. MANE-VU acknowledges these efforts. West Virginia should document the enforceable agreements for all identified sources in its final SIP.

MANE-VU recognizes West Virginia's past and future EGU retirements and emission reductions including those that have enforceable mechanisms, as described in the WVDEP RH SIP.

Ask #2: For emissions sources having a 3.0 Mm⁻¹ impact or greater at MANE-VU Class I areas, perform a four-factor analysis.

Emissions from two West Virginia facilities, Harrison Power Station (Harrison) and Kammer (Facility ID 3947) were identified by MANE-VU's technical analysis as having the potential for a 3.0 Mm⁻¹ or greater impact at one or more of MANE-VU's Class I areas. MANE-VU notes that the Kammer facility has been permanently shut down. West Virginia should document in its SIP that the shutdown and associated emission reductions stated in Section 7.2.2 are permanent and enforceable.

Section 7.8 of the WVDEP RH SIP states that Monongahela Power Company (Monpower), owner of Harrison, responded to WVDEP's reasonable progress analysis request, stating that a four-factor analysis is unnecessary and inappropriate for Harrison. Monpower states the reasons for its decision as Class I areas impacted by emissions from Harrison being below the uniform rate of progress (URP) glide paths, and controls at Harrison exceeding Best Available Retrofit Technology (BART) control limits, among others. MANE-VU recognizes the emission controls and reductions at Harrison mentioned in Section 7.8 of the WVDEP RH SIP, however, MANE-VU disagrees with the reasons provided for exempting Harrison from a reasonable progress analysis. Class I areas impacted by Harrison being below the glidepath does not exempt West Virginia from considering additional controls that may be necessary to ensure incremental progress towards the federal regional haze rule and Clean Air Act goals of natural conditions by

2064. MANE-VU respectfully requests that a four-factor analysis be performed for Harrison, consistent with MANE-VU Ask #2, to determine the reasonableness of more stringent control efficiencies or stricter emission limits. BART limits were included in the MANE-VU Ask for the first planning period of regional haze (2008 – 2018), but not the second planning period.

Ask #3: Adopt an ultra-low sulfur fuel oil standard.

West Virginia did not address the MANE-VU ultra-low sulfur fuel oil Ask. MANE-VU respectfully re-iterates its request for West Virginia to adopt ultra-low sulfur fuel oil standards as part of its long-term strategy or demonstrate in its SIP why it would not be feasible to do so. For distillate oil, this would be essentially the equivalent of on-road diesel, which is already widely available. We note that all MANE-VU states have successfully adopted low sulfur fuel oil requirements.

Ask #4: EGUs and other large sources pursue enforceable mechanisms to lock in lower emission rates.

MANE-VU notes the EGU emission reductions and enforceable agreements stated in Section 7 of the WVDEP RH SIP, including those that have come about via enforceable mechanisms, such as consent orders. However, MANE-VU Ask #4 was not directly addressed in the WVDEP RH SIP.

Ask #5: Energy efficiency and clean technologies.

In sections 7 and 13 of the WVDEP RH SIP, West Virginia credited renewable energy as contributing to significant SO₂ emission reductions in the state but did not provide any details on these efforts. MANE-VU respectfully asks that West Virginia consider, and report in its SIP, measures or programs in West Virginia that reduce emissions by encouraging energy efficiency and promoting clean energy technologies. Unlike MANE-VU's other Ask items, MANE-VU does not necessarily intend that these measures be enforceable or included as part of the state's long-term strategy. But because such programs can reduce emissions and therefore benefit visibility, MANE-VU is asking its upwind state partners to consider and report such measures in their regional haze SIPs.

Additional Comments

Section 10.3, Consultation with MANE-VU, Technical Analysis – Inventories, Modeling, and Evaluation, pages 219-249

The WVDEP RH SIP mentioned the letter submitted by VISTAS to MANE-VU on January 27, 2018, identifying concerns from VISTAS states, including West Virginia. The referenced VISTAS letter stated that the MANE-VU states' analysis used emission inventories that are outdated and inconsistent with the recent EPA regional haze modeling platform, and that the inventories do not fully reflect emission reductions expected from southeastern EGUs. WVDEP also stated that MANE-VU states used the CALPUFF model and the Q/d screening approach to identify contributions that they allege are significant, and that CALPUFF should not be used for transport distances greater than 300 km because there are serious conceptual concerns with the use of puff dispersion models for very long-range transport that can result in overestimations of surface concentrations by a factor of three to four.

Here, MANE-VU would like to simply re-iterate the remarks that it made in response to the VISTAS January 27, 2018, letter via the MANE-VU Regional Consultation Report, dated July 27, 2018. MANE-VU stated that it used a weight of evidence approach using several analyses. MANE-VU maintains that this approach is consistent with EPA's 2019 *Guidance on Regional Haze State Implementation Plans for the Second Implementation Period*, which states that “[a] variety of technical, quantitative approaches exist to assess which out-of-state Class I areas may be affected by aggregate emissions from a given state”; and “a state may use another reasonable approach (e.g., back trajectory-based approaches).”

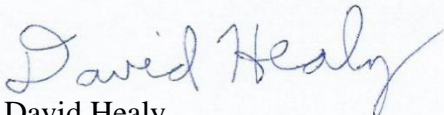
Consistent with this guidance, MANE-VU used several technical, quantitative methodologies as screening tools to identify states that are reasonably anticipated to contribute to visibility impairment at MANE-VU Class I areas. To account for uncertainties that may exist with any one analysis method, MANE-VU did not rely solely on the absolute magnitude of the contribution predicted by any one method, but rather used the results of each method to develop a relative ranking of state impacts in determining which states are reasonably anticipated to contribute to visibility impairment at MANE-VU Class I areas.

Thank you for your efforts and your consideration of these comments. If you would like further clarification or discussion on any of these comments, please contact the MANE-VU Lead Manager Paul Miller (pmiller@nescaum.org) or the Chairs of the MANE-VU Technical Support Committee, Sharon Davis of the New Jersey Department of Environmental Protection (sharon.davis@dep.nj.gov) and David Healy of the New Hampshire Department of Environmental Services (david.s.healy@des.nh.gov).

Sincerely,



Sharon Davis
New Jersey Department of Environmental Protection and Co-Chair of MANE-VU Technical Support Committee



David Healy
New Hampshire Department of Environmental Services and Co-Chair of MANE-VU Technical Support Committee

cc: MANE-VU Directors
MANE-VU Technical Support Committee