United States Department of the Interior
NATIONAL PARK SERVICE
Air Resources Division
P.O. Box 25287
Denver, CO 80225

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

September 26, 2008

N3615 (2350)

Robert R. Scott, Director
Air Resources Division
New Hampshire Department of Environmental Services
P.O. Box 95
29 Hazen Drive
Concord, New Hampshire 03302-0095

Dear Mr. Scott:

On August 1, 2008, the State of New Hampshire 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 State 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 Northeast Region) at (814) 865-3100, or Tim Allen of the FWS Branch of Air Quality at (303) 914-3802.

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

Sincerely,

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

Sincerely,

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

Enclosure

cc:
Stephen Perkins (Suite 1100 CAA)
Director, Office of Ecosystem Protection
EPA New England
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

National Park Service and U.S. Fish and Wildlife Service Comments Regarding New Hampshire Draft Regional Haze Rule State Implementation Plan

On August 1, 2008, the State of New Hampshire (NH) submitted a draft Regional Haze Rule State implementation plan (SIP), pursuant to the requirements codified in federal rule at 40 CFR 51.308(i)(2), to the U.S. Department of the Interior, National Park Service (NPS) and U.S. Fish & Wildlife Service (FWS). The air program staff of the NPS and FWS have conducted a substantive review of the New Hampshire draft plan, and have provided the comments listed below. We look forward to the New Hampshire Department of Environmental Services (NHDES) response as per section 40 CFR 51.308(i)(3). For further information regarding these comments, please contact Holly Salazer of the NPS Northeast Regional Office at (814) 865-3100, or Tim Allen of the FWS Branch of Air Quality at (303) 914-3802.

General Comments:

Foremost, this is a well-written comprehensive SIP submission. The following two general issues, (1) the Clean Air Interstate Rule (CAIR) vacatur and (2) discrepancies in modeling between regional planning organizations (RPOs) are highlighted as broad range topics that merit more discussion through the consultation process.

The most significant issue is the CAIR vacatur and how eastern states are going to deal with this appropriately. As written, the draft SIP does not acknowledge the impact of the CAIR vacatur on emission inventories, modeling, Reasonable Progress Goals (RPG) calculations and Long Term Strategy (LTS) development, all of which depend on CAIR implementation. We suggest acknowledging the vacatur of CAIR in a more meaningful discussion within the narrative of the SIP rather than as a footnote stating the court remanded the rule back to EPA.

In addition, the SIP includes a comprehensive discussion of the MANE-VU "Ask" as an important part of the region and state's long-term emission control strategy. This issue is two-fold. First, as mentioned previously, there are discrepancies in modeling between MANE-VU's best and final runs and those of other RPO's due to the inclusion of the "Ask" in MANE-VU modeling runs. It is important that stakeholders understand how the RPO modeling runs differ and why the results may not be comparable between the RPOs. We commend the state on acknowledging this issue and trying to describe how MANE-VU made the modeling decisions that it did (Section 3.2.3 Technical Ramifications of Differing Approaches). Second, based on our experience, not all MANE-VU states will be incorporating the "Ask" commitments into their individual SIPs. If the final modeling includes reductions expected from the "Ask," and if not all MANE-VU states include the "Ask" in their SIP as commitments, New Hampshire (and other MANE-VU states as well) need to address this shortfall. New Hampshire states they support all state SIPs that include the "Ask" commitments, but there is no mention of how the state plans to deal with those states that do not.

Specific Comments:

Page 1, paragraph 5 – Edit "A state's long term strategy must including" to "must include".

Page 2, 1st footnote – See general comment above. Recommend including footnote in text and discuss how the vacatur affected NH decision-making.

Page 12 – Since visibility monitoring is accomplished by one site for both NH Class I areas, recommend changing title and text to reflect Figure 1.7 would be trend information for both wilderness areas and not just Great Gulf as the current text implies. Or establish early on that Great Gulf will be representative of both Class I areas throughout the SIP.

Page 13 – Recommend clarifying last set of bullets on trend plots. Since NHDES plots Worst Natural and Best Natural, the bullets should include this separation. For example, the worst 20% days are approximately 10 DV greater than Worst Natural. And the same is true for the second bullet, delineate which Natural trend line (worst or best) you are referring too.

Page 13, last paragraph into Page 14 – Need to revise text to reflect the CAIR vacatur. Currently, the text states that there will be significant decreases in SO2 emissions due to CAIR.

Page 14 – Recommend reminding reader that there is only one site for both Class I areas in NH and hence the decision to just include Great Gulf mass contributions OR include same figure titled Presidential Range-Dry River to reflect the state's knowledge of both Class I areas.

Page 20 – Recommend clarifying that both formal and informal consultation within MANE-VU has been on-going since establishment in 2001 with the bulk of formal consultation occurring in 2007 as outlined by Table 3.3.

Pages 22-23 – The state provides a comprehensive summary of its consultation efforts taken within and outside MANE-VU. However, the state does not include the end result of its consultation efforts with each of those states (not including the Canadian provinces, which NH includes). As stated, NH sent letters to all MANE-VU states, but what was their response? Same comment applies to meetings with MRPO and VISTAS. If results are included in an Appendix, then a summary of those results should be included in the SIP text. Or recommend referencing future sections that deal with consultation issues and results, e.g., section 3.2.2.3. and Section 3.2.4

Page 23, 2nd paragraph – Reference to CAIR needs to be addressed.

Page 25-26 – It is fair to state that non-MANE-VU states have not included the MANE-VU Ask in their SIPs, considering most of VISTA states have already submitted SIPs to EPA.

Page 29 – The state can include the date of August 1, 2008, as the date submitted to the NPS/FWS.

Page 29 – Text should be more specific as to the availability of FLM comments for public review and comment prior to the SIP submission to EPA.

Page 35, 1st bullet in 5.2 – Add "New" to the beginning of sentence #3.

Page 37, Figure 5.2 – Suggest including deciview measurements on the figure for context, same comment for Figure 5.4, 5.6, 5.7 (if deciview information is available), 5.10, 5.11, and 5.14.

Page 48 – Suggest deleting "The" in front of "New Hampshire" in paragraph 1, second half of sentence #3. Same comment for following paragraph.

Page 49, last paragraph – Change "calculated directed" to "calculated directly".

Page 58 –Identifies organic carbon (OC) as second largest contributor to haze but goes on to focus on large scale SO2 control measures. In Section 10.2.1, NH acknowledges the importance of OC but, based on the Contribution Assessment, it is determined that an early focus on additional SO2 reduction is more beneficial than targeting OC emissions at this current time. Organic emissions will play a more important role as regional haze planning moves into future planning periods. Organic carbon emissions need to be identified in terms of fire emissions and a commitment to tracking these emissions should be included in Section 11 under Agricultural and Forestry Smoke Management.

Page 58, second paragraph under 8.1 – Change Figure 8.11 to Figure 8.1.

Page 59, 2nd paragraph – Delete the first "one" in "one just one of".

Page 73 – "Thus, to the extent that these types of activities are found to affect visibility at Northeastern Class I areas, control measures targeted at crustal material may prove beneficial." Referring to PM coarse and fine contribution, SIP should state that further action on this item is the purview of EPA or state agencies.

Page 79, Section 9.0 BART – We understand that NH is currently working on completing draft permits for the two BART-eligible sources discussed below. We request that the state share the temporary permits with the FLMs when available.

Merrimack Station

According to the CAM database, the Merrimack Station consists of two coal-fired cyclone boilers with SCR for NOx control and ESPs for PM control, and two oil-fired combustion turbines. Based on the ages of these units, only one coal-fired cyclone boiler, Unit 2, is subject to BART. According to the CAM database, in 2007, emissions from Unit #2 were: 25,000 tpy SO2 (@ 2 lb/mmBtu) and 2,200 tpy NOx (@ 0.19 lb/mmBtu).

- NH concluded that a 90% efficient Flue Gas Desulfurization (FGD) system recently proposed by PSNH represents BART for SO2. NH provides no discussion of why this level of control was chosen.
- NH concluded that the current 85% efficient SCR system represents BART for NOx. NH provides no discussion of why this level of control was chosen.
- NH concluded that the current ESP represents BART for PM. NH provides no discussion of why this level of control was chosen.
- In conversation with NH staff regarding this BART determination, we learned that both coal-fired units will be controlled under legislation to reduce mercury emissions and they will share a common stack. In the regional haze SIP, NH should clarify which pollutants are being addressed and identify the associated emission limits, for each pollutant, at each boiler.

No economic or visibility benefits analysis was conducted because NH stated it was proposing the "most effective control option" for each pollutant. While it may be true that NH has proposed the "most effective control" option for each pollutant, NH is still obligated to evaluate each proposed control technology to determine the appropriate level of control efficiency for each control technology. For example, it is generally assumed that wet scrubbers can achieve at least 95% control efficiency, and that SCR can remove 90% of incoming NOx. NH should show why the Merrimack controls cannot perform as well.

Newington Station

According to the CAM database, the Newington Station consists of one oil- and gas-tangentially-fired boiler with an ESP for PM control, and two gas- and oil-fired combined cycle combustion turbines equipped with Dry-Low-NOx Burners and SCR. In conversation with NH staff, we have learned that only the coal-fired Unit #1 is subject to BART. According to the CAM database, in 2007, emissions from Unit #1 were: 2,300 tpy SO2 (@ 1 lb/mmBtu) and 415 tpy NOx (@ 0.16 lb/mmBtu).

- NH concluded that a FGD system is too expensive. (No cost analysis was provided.) NH proposes that the sulfur limit on the #6 residual oil be reduced to 1%. NH provides no discussion of why this level of control was chosen as BART for SO2.
- NH concluded that the current combustion controls represent BART for NOx. NH eliminates SNCR ($3,000 - $5,000/ton) and SCR ($5,000 - $6,000/ton) on the bases of costs, but provides no information on how these costs were estimated.
- NH concluded that the current ESP, combined with use of cleaner fuel oil, represents BART for PM.

No basis for the economic analyses was provided and no visibility benefits analyses were conducted. While this is a relatively small, clean boiler, NH is still obligated to evaluate each proposed control strategy to determine the appropriate level of control for each source. For example, it may be that fuel oil with sulfur content lower than the proposed 1% is economically feasible; NH should evaluate that option, as well as provide a cost analysis for adding a FGD system.

Page 86-87 – Recommend referencing section in 3.0 regarding Canada consultation as source for the input for RPG.

Page 89, Section 10.2.2 – Reference to CAIR satisfying BART in CAIR states.

Page 90, Section 10.2.3 – Concern that not all MANE-VU states have committed to low-sulfur fuel oil strategy.

Page 97, Reasonableness of Targeted EGU SO2 Reduction Strategy – SIP needs to acknowledge CAIR vacatur.

Page 99 – Base case modeling used CAIR as baseline, with the vacatur of CAIR, how will that affect modeling assumptions and outputs?

Page 103 – Recommend clarification of last sentence of first paragraph, i.e. that the 4 factor analysis *for the low-sulfur fuel oil strategy* was described in Section 10.2.3 of this section.

Page 105, Table 10.7 – typo in 3rd row (caol to coal). Typo in 4th row (High-Sulfur).

Page 100-107, 10.2.5 Non-EGU SO2 Emissions Reduction Strategy for Non-MANE-VU States – Our experience is that non-MANE-VU states have not committed to this 28% reduction from ICI Boilers in their RH SIPs. How will this affect NH's overall LTS?

Page 113, Section 11.3 Existing Commitments to Reduce Emissions – Recommend providing a reference to future sections for the specifics on control programs assessed, e.g. sections 11.3.1, 11.3.2, and 11.3.3.

Page 114, 11.3.1 Controls on EGUs Expected by 2018 – Individual state control programs are highlighted, in addition to North Carolina Clean Smokestacks Act and consent decrees in VISTAS, but CAIR remains the most significant strategy for controls on EGUs.

Page 116, 1st bullet under NH EGU Regulations – Suggest adding "fuel" to "fossil-fired".

Page 121 – NH's Long Term Strategy includes planned commitments by other states that are not enforceable.

Page 122 – Admits states "have agreed to pursue" the suite of additional control measures (i.e., the "Ask") and "hopes" non-MANE-VU states do the same or equivalent over the next 10 years.

Page 122 – 11.4.1 Implementation of BART – Question of the assumption (which is no longer so) of CAIR satisfying BART for the EGU sector.

Page 123, Section 11.4.3 Targeted EGU Strategy – Recommend revising last sentence of 1st paragraph to include, "…to mitigating haze pollution in wilderness areas *and national parks* of the Northeast states."

Page 123 – Explanation as to why MANE-VU is asking for 90% reduction on targeted EGUs in other RPOs when NH is only netting a 75% reduction from one of their two BART sources.

Page 126, 11.7 Agricultural and Forestry Smoke Management, 1st sentence of 3rd paragraph – typo "… the cause off" to "… the cause of".

Page 126 – Suggest adding whether or not NH anticipates the potential of smoke impacts to stay the same, increase or decrease by 2018. Also, since Organic Carbon is the second largest contributor to visibility impairment in the MANE-VU region and will become more important for regional haze planning, recommend adding a commitment to track fire emissions in the future. Research would also be helpful in determining whether emissions from wood-burning stoves or fire emissions from agriculture or forestry management are more significant to the region.

Page 127, 2nd to last paragraph, 2nd sentence – Typo "to obtained 2018 projected concentrations for each day" to "to *obtain* 2018 projected concentrations…"

Page 128 last paragraph – Suggest ending the explanation of the position of the purple star to state that "Similarly, the position of the purple star below the dashed line indicates predicted improvements on days of best visibility *may be greater than predicted natural background conditions.*"

Page 129 – Figure 11.1, the light-green dash (–) that represents the theoretical 20 percent best visibility value under natural conditions (i.e., no anthropogenic emissions) at 2064 can not be seen. Same comment true for Figure 11.6 on page 132.

Page 133 – Need to deal with CAIR no longer a part of the LTS.

Page 134 Section 11.11 Enforceability of Emission Limitations and Compliance Schedules – Whereas the SIP text talks about the specific BART determinations being codified (and hence enforceable) within state law, the enforceability of the other components of the LTS, such as fuel oil strategy and targeted EGU strategy, is not mentioned or dealt with. This is a critical requirement of the SIP, to have all expected (and modeled) emission reductions enforceable throughout the MANE-VU region.