



United States Department of the Interior

OFFICE OF THE SECRETARY

Washington, D.C. 20240

Steven Chester, Director
Michigan Department of Environmental Quality
P.O. Box 30473
Lansing, Michigan 48909

JUL 10 2008

Dear Mr. Chester:

On October 12, 2007, the State of Michigan 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, Fish and Wildlife Service (FWS), has received and, in consultation with the U.S. Department of the Interior, National Park Service (NPS), has conducted a substantive review of your draft Regional Haze Rule implementation plan, which you are preparing 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.

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 Management agencies, and we have enclosed comments associated with these priorities. Note that we have highlighted comments in bold face that we feel warrant additional consultation prior to public release. We look forward to your response, as per section 40 CFR 51.308(i)(3). For further information, please contact Tim Allen, U.S. Fish and Wildlife Service at (303) 914-3802.

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

Sincerely,

Assistant Secretary for
Fish and Wildlife and Parks

Enclosures

**U.S. Fish and Wildlife Service Comments Regarding
Michigan Draft Regional Haze Rule State Implementation Plan
June 13, 2008**

On October 12, 2007, the State of Michigan 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, U.S. Fish and Wildlife Service (FWS) and the National Park Service (NPS).

The air program staff of the FWS in consultation with the NPS conducted a substantive review of the Michigan draft plan dated October 12, 2007. In addition, the FWS and NPS participated in a conference call with Michigan on October 31, 2007, to discuss our preliminary concerns on the October 2007 draft. On November 6, 2007, we were informed that Michigan would not proceed with the SIP as drafted and we did not finalize our comments at that time. FWS and NPS staff assumed that we would be given a full review period for the anticipated, significant revisions to the October, 2007 draft plan. We were recently advised by the State that the air program staff of the FWS and NPS would not be given a review period for the revised Regional Haze SIP. Therefore we are now providing these comments which are pertinent to the October 12, 2007 draft plan. We believe that the issues described below warrant additional consultation prior to public release of the Michigan Regional Haze Plan.

We look forward to your response as per section 40 CFR 51.308(i)(3), and would be very willing to work with Michigan Department of Environmental Quality (MDEQ) staff towards resolving the major issues discussed in this letter. For further information, please contact Tim Allen with FWS at (303) 914-3802.

Overall Comments

As written, the SIP does not include a significant number of critical sections. These include: all information regarding performance testing, baseline, and future emission inventories; all information regarding regional air quality modeling or analysis performed by the Regional Planning Organization (RPO) or State agency; the majority of information supporting Best Available Retrofit Technology¹ (BART) and all phases of the BART analysis or decision; the majority of information supporting the interstate consultation process; and all information regarding the "Area of Influence (AOI)" or sub-RPO evaluation of reasonable control expectations. As such, the draft Regional Haze submittal by the State of Michigan does not provide sufficient information to constitute a

¹ BART-eligible sources are those sources that have the potential to emit 250 tons or more of a visibility-impairing air pollutant, were put in place or under construction between August 7, 1962 and August 7, 1977, and whose operations fall within one or more of 26 specifically listed source categories. Under CAA section 169A(b)(2)(A), BART is required for any BART-eligible source which "emits any air pollutant that may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area."

complete document and does not meet the expectation of the Clean Air Act, Section 308 rule in providing the Federal Land Manager a pre-hearing review.

We request that Michigan provide a full 60-day review period before the public hearing of the Regional Haze SIP once all sections and supporting information are available.

Several assertions are made in the draft SIP that are contrary to the intent of the Clean Air Act (CAA) and the Regional Haze rule. For example, page 14 of the SIP narrative states, "To add on additional requirements to meet nonhealth-based haze provisions is not reasonable." Also, on page 15 the SIP narrative states with respect to Reasonable Progress, "Additionally, while Michigan would benefit from additional controls in upwind states, Michigan cannot expect other upwind states to control their sources if we do not believe it is reasonable for us to do so." These statements contradict the intent of the CAA and the Regional Haze rule by summarily dismissing controls on the premise that the rule does not have a human health component. The rationale for the State's decisions on emissions strategies should rely on an analysis of the four statutory factors. Such a rationale is neither presented nor supported in the draft materials sent to us for review.

It is important to note that the Environmental Protection Agency (EPA) interprets the Regional Haze rule in its Plain Language fact sheet (Final Regional Haze Regulations for Protection of Visibility in National Parks and Wilderness Areas, June 2, 1999) as:

"The same particles (sulfates, nitrates, organic carbon, smoke and soil dust) comprising PM, which are linked to serious health effects and environmental effects (e.g., 2.5 ecosystem damage), can also significantly degrade visual air quality. Thus, actions to reduce levels of visibility-impairing pollutants will benefit public health and reduce certain adverse effects to the environment."

And, in 40 CFR Part 51, II, Background Information on the Regional Haze Program;

"The fine particulate matter (PM) (e.g., sulfates, nitrates, organic carbon, elemental carbon, and soil dust) that impairs visibility by scattering and absorbing light can cause serious health effects and mortality in humans... Visibility degradation has also been recognized as an indicator of multiple human-health effects and environmental effects resulting from air pollution all over the world."

The State further suggests that programs dealing with particulate matter and ozone may be considered in the future and these programs may collaterally benefit visibility in the Class I areas. Particulate and ozone programs related to National Ambient Air Quality Standards (NAAQS) attainment will not concentrate on Isle Royale National Park and the Seney National Wilderness Area (NWA) as primary receptors. It is likely that programs intended to address NAAQS nonattainment will be focused in more urban areas. However, it should be recognized that controls implemented for visibility improvement in the Class I areas will also provide benefit in meeting the NAAQS for particulate matter and ozone.

The draft SIP evaluated controls across multi-state levels. Except for the identification of six potential BART sources located in Michigan, the review approach for cost versus benefit were exclusively multi-state averages. The purpose of calculating a cost per deciview is to account for the distance from a single source to a specific Class I area. Calculating a cost per deciview, averaged over a multi-state region, invalidates the usefulness of such an evaluation.

The State did not develop an assessment of AOI for the Class I areas within the State or those affected by emissions from the State. This could be developed from the assessments conducted by the Midwest Regional Planning Organization (MRPO) and other similar groups that assessed causes of haze, source types, and source areas that are major contributors. Information revealed through an AOI evaluation is critical in identification of haze causing pollutants, assessing reasonable progress goals, and development of a long term strategy. The SIP is void of an analysis which looks at specific source sectors within Michigan and determines, based on the four statutory factors, what controls, if any, are needed for visibility improvements in Isle Royale and Seney NWA.

It is our opinion that the plan as submitted contains deficiencies that are not consistent with the requirements of the Regional Haze Regulations. As such, the SIP may not be approvable by the FWS and NPS.

The remaining comments provided are organized according to the priorities that we presented in our August 1, 2006 letter.

Comments:

Baseline, Natural Condition, and Uniform Rate

1. The VIEWS website contains updated information regarding IMPROVE monitoring summaries. Recent updates address calculation errors with many sites that processed missing or replacement data. The deciview values for natural conditions contained in the draft SIP are in error and should be updated per the information contained in the VIEWS website.

Emission Inventories

2. Please provide a more detailed description of the emissions inventories used in analyzing base year and performance evaluations, base case averaged inventories, future year projections, and control strategy inventories. These inventory descriptions should include the years analyzed, including the 2005 information, and it should clarify each inventory's relevance to the State's Regional Haze Plan. We suggest that a full discussion of the 2002 inventory data and projections to 2018 be included since that is the time period most closely associated with the first implementation period of the Regional Haze program.

3. In addition to providing overall emission inventory information, please clarify years used for BART evaluation. Page 12 of the SIP narrative states that emissions for years 2002 and 2004 were evaluated, yet the meteorological data was 2002 through 2004. Three years of emissions data are required for BART evaluation.
4. Please provide a section which details the photochemical modeling. While this section would likely include references to the detailed work of the MRPO, the SIP narrative should contain a complete summary of the modeling runs, procedures, and results that MI is relying upon to inform its decisions in this Regional Haze SIP.
5. Please provide all information regarding the State's protocols and efforts to evaluate BART. The draft SIP alludes to BART determination information, but does not contain any detail. Assertions with respect to source emissions divided by distance (Q/d) and CALPUFF based elimination should be supported and discussed. Also, the SIP implies that the Clean Air Interstate Rule (CAIR) is BART for EGU sources. Please confirm that EGUs conducted BART evaluations for their primary particulate and sulfate emissions. We request a 60 day review period of all information pertaining to BART.
6. Please clarify the information contained in 'Table AI-2: Facilities with a Q/d > 10 TPY/km'. It appears that the columns may be mislabeled, or the information is misrepresented. Also, the Class I area referenced in a Q/d calculation should be identified with respect to each facility.
7. We request that the State reconsider controls for construction activity emissions on a state-wide basis and address how these emissions may impact the Class I areas.

Area of Influence

8. The State does not provide information regarding AOI with respect to each Class I area. This work would be a summary, by Class I area, of the work by the MRPO on defining the geographic area and emissions sources most influencing visibility at Michigan's Class I areas, as well as Michigan's influence on Class I areas outside of the State that Michigan's emission sources significantly impact. This type of analysis is critical to the discussion of attribution of regional haze causing pollution, identification of reasonable progress goals, and development of long term strategies for Michigan's Regional Haze Plan. The State can obtain weighted trajectory and residence time information for Seney and Isle Royale through the "Causes of Haze" website at <http://www.coha.dri.edu>. This website provides information that can be used to develop an AOI for each of the Class I areas and potentially limit the number of sources to be evaluated.

9. Information on multi-state controls is confusing due to the lack of significant background information on emission inventories. The SIP only discusses multi-state approaches and provides little information on ways these states are considering possible controls; in other words, there appears to be little state-to-state consultation with respect to controls for these sources.

Reasonable Progress Goals and Long Term Strategy

10. An AOI analysis is critical to assessing source attribution to regional haze and establishing reasonable progress goals and a long term strategy. As previously discussed, no AOI's were established for Isle Royale or Seney. The State's approach is to discuss multi-state average controls, which in our view is not an adequate evaluation of reasonable progress.
11. The State identifies that 'beyond-CAIR' controls would be the most effective program to achieve visibility improvements in the Class I areas, yet these control options are dismissed. Michigan concludes, due to ongoing control efforts by the energy industry and the State's opinion that the Regional Haze Rule is non health-based, that 'beyond-CAIR' controls are unreasonable. This is in direct conflict with the Regional Haze Rule. The State should include a discussion of MRPO analysis of multi-state controls and how those strategies compare with Michigan's choice of reasonable progress with respect to the four statutory factors and the uniform rate of progress assessment required by the Regional Haze Rule.
12. Michigan also declares that the "bleak" economic condition is an additional reason not to consider emission reductions as part of reasonable progress. Information should be provided that demonstrates that individual sources or source sectors would endure particular economic stress to warrant an assumed zero dollar per ton control decision. Again, multi-state averages do not support this decision with respect to reasonable progress.
13. The State should include apportioned emission projections for 2018 in the SIP narrative. These projections can illustrate the State's intent with respect to further controls in the near future and their impact on visibility impairment. In addition, this information can possibly bolster the State's assertion that other air quality programs may enhance visibility progress.
14. PSD permit review should be discussed as to how this program will benefit visibility. Please make direct statements on how MI has committed to review PSD actions in a way that supports progress goals in the regional haze program.
15. The SIP does not provide reasonable progress information with respect to protection of the 20% cleanest days. The Regional Haze Rule requires that reasonable progress goals be established for protection of the 20% cleanest days at each Class I area, as well as improvement of the 20% dirtiest days. In addition, if the modeling conducted for 2018, and upon which the State setting the

reasonable progress goals for the worst 20% days, projects improvement in the 20% best visibility days, the State should recognize that improvement when setting the 20% best visibility days.

Fire

16. The Regional Haze SIP should identify both Isle Royale and Seney as smoke sensitive areas and prescribed burners should be required to apply the appropriate smoke management techniques to minimize smoke impacts.
17. We recommend that the stated purpose of the Smoke Management Plan (SMP) (as outlined on Page 1, of the Executive Summary of the SMP) be incorporated into the Regional Haze SIP so that the two documents are consistent in message with respect to smoke impact.
18. As discussed above, the State did not include apportioned emission projections nor did it identify the sources of haze at the Class I areas. In the context of wild and prescribed fire, the State should consider and describe how natural and non-natural smoke emissions currently affect the Class I areas and how these effects may change during the planning period.
19. We recommend that the State commit to conducting annual reviews of the Smoke Management Program, to ensure that air quality issues are addressed in an appropriate manner.

Verification and Contingencies

20. The monitoring strategy description on page 9 of the draft SIP states that, should federal funding for the IMPROVE monitoring no longer be provided, the State cannot continue the monitoring effort. While the IMPROVE monitoring system does incur considerable cost, the Regional Haze Rule suggests that ultimately the State is responsible for monitoring in support of visibility protection. Michigan should explore and describe other programs that may have lower operating cost, yet still provide information regarding visibility progress.

Coordination and Consultation

21. The SIP identifies several Class I areas located outside of the State which are affected by sources within Michigan. Please provide a discussion on Michigan's impact on outside Class I areas and how future controls are reasonable to address these impacts. Also, provide information regarding Michigan's consultation with neighboring states with respect to regional haze issues. For example, how did the State come to the conclusion that controls that will be implemented in Michigan are reasonable to address impacts to Class I areas in neighboring states?

22. The draft SIP places great emphasis on other air quality programs in providing emission reductions for visibility improvement. However, little detail with respect to these programs is provided. Since the State places so much importance on these 'other programs' in meeting visibility goals, please provide information on how the FLM's will be consulted with respect to these programs.

23. Please provide specific information regarding Michigan's participation and efforts with respect to state-to-state regional haze consultations. Provide documentation as well as the outcomes and decisions of such consultations. While we are aware of ongoing discussion in the "Northern Class I areas" consultation process, the SIP should summarize that process and highlight the conclusions of that group. The SIP should also address Michigan's response to any sources addressed by the Mid Atlantic New England Visibility Union RPO (MANE-VU) and requests for controls developed during the inter-RPO consultations.