



IN REPLY REFER TO:

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



March 10, 2011

N3615 (2350)

John Melby, Bureau Director, Air Management  
Wisconsin Dept. of Natural Resources  
S. Webster Street  
PO Box 7921  
Madison, Wisconsin 53707-7921

Dear Mr. Melby:

On January 14, 2011, we received Wisconsin's draft State Implementation Plan to address regional haze. We appreciate the opportunity to work closely with the State through the initial evaluation, development, and 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, National Park Service and the U.S. Fish and Wildlife Service, 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 our 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 Management 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 regarding our comments, you can contact Pat Brewer at (303) 969-2153 or Tim Allen of the U.S. Fish and Wildlife Service at (303) 914-3802.

Again, we appreciate the opportunity to work closely with the State of Wisconsin to improve visibility in our Class I areas.

Sincerely,



Patricia F. Brewer  
Acting Chief, Air Resources Division  
National Park Service

Sincerely,



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

Enclosures

cc:

John Summerhays  
U.S. EPA Region 5  
77 W. Jackson Blvd.  
Chicago, Illinois 60604

Jonathan Loftus  
Bureau of Air Management  
Wisconsin Department of Natural Resources  
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Madison, Wisconsin 53703

**National Park Service and U.S. Fish and Wildlife Service Comments  
Wisconsin Draft Regional Haze State Implementation Plan (SIP)  
March 10, 2011**

The National Park Service and the U. S. Fish and Wildlife Service received Wisconsin's draft regional haze state implementation plan (SIP) on January 14, 2011. The National Park Service and Fish and Wildlife Service provided recommendations to Wisconsin Department of Natural Resources (WDNR) in August 2006 that detailed our priorities in reviewing the state plans. We have reviewed WDNR's draft plan, and the comments below address our review priorities. We are available to assist WDNR in addressing our recommendations.

There are no Class I areas within Wisconsin. Monitoring and modeling analyses by the Midwest Regional Planning Organization (MRPO) conclude that Wisconsin contributes to four Class I areas in the Upper Midwest (Isle Royale National Park and Seney Wilderness Area in Michigan and Voyageurs National Park and Boundary Waters Wilderness Area in Minnesota). WDNR asserts that the existing state actions meet the requirements of the regional haze rule. However, additional documentation is necessary to describe the pollutant contributions to visibility impairment at the Class I areas that Wisconsin impacts and how emissions controls that are underway or planned in Wisconsin are sufficient to demonstrate reasonable progress by Wisconsin in reducing visibility impairment. Specific examples of additional documentation are described below.

**Part IV Section 2: Baseline and Natural Conditions**

Table 2 lists the baseline and natural visibility conditions at the four northern Class I areas.

Please provide information to illustrate the pollutant contributions to the current baseline conditions, and the needed visibility improvement in each pollutant to reach natural conditions. This information is available at: <http://views.cira.colostate.edu/web/Composition/>. We recommend that WDNR add a summary of pollutant contributions in the baseline period for the average of the 20% worst and 20% best days at each of the four Class I areas and monthly or daily time series from the IMPROVE data to illustrate the temporal variation in pollutant contributions. Please explicitly state which pollutants would be most effective to control to improve visibility at the impacted Class I areas.

Figure 1 illustrates the glidepaths for the uniform rate of progress for the four Class I areas. Please discuss the basis for the differences in baseline conditions among the sites and cite the MRPO trajectory data that support the geographic differences in source areas contributing to the sites.

## **Part IV Section 3 Emissions Inventory**

This chapter very briefly summarizes the methods used by the MRPO to develop the 2005 and 2018 inventories.

WDNR is relying on the proposed Clean Air Transport Rule to have similar or greater emissions reductions in Wisconsin than the Clean Air Interstate Rule (CAIR) that was the basis for the 2018 “On the Books” emission projections for electric generating units (EGU). Please provide more specific evidence to support this expectation. At a minimum WDNR should compare the EGU emissions projected by the Integrated Planning Model (IPM) for CAIR and compare those emissions to the EGU emissions projected by EPA for Wisconsin under the proposed Transport Rule.

Table 4 summarizes the EGU actual emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) for 2005-2009 and projected 2018 emissions for four alternative scenarios. We commend the weight of evidence provided by the actual emission trends. Please better describe the assumptions associated with each case. Please clarify if the 2018 “Will do” Case C is the same as the “No CAIR” scenario modeled by the MRPO. The footnote indicates that the 2005 emissions were grown to 2018, but does not indicate what controls were assumed. Do any of the scenarios represent the total legally enforceable controls that will be installed by 2018? If so, please clarify in the supporting text which scenario is the “legally enforceable” scenario.

## **Part IV Section 4 Best Available Retrofit Technology**

WDNR is relying on EPA’s finding that CAIR is better than Best Available Retrofit Technology (BART). However, CAIR has been vacated and EPA has not yet demonstrated that the Transport Rule will be better than BART. Wisconsin should compare EGU emissions that are projected under the Transport Rule to emissions projected under CAIR to demonstrate that emissions under the Transport Rule will be lower than under CAIR.

We support the BART determination for Georgia Pacific as described in the SIP. If WDNR makes changes to the BART determination, the State should provide the changes to the Federal Land Managers for review prior to approval.

We support the exemptions for the three BART eligible non-EGU sources.

## **BART Particulate Controls for Wisconsin EGU**

BART is an emission limit. WDNR has determined that the existing particulate controls on the EGUs subject to BART are adequate, and that the proposed PM permit limits represent BART. A central element in WDNR’s demonstration is a modeling analysis that shows that, even if all PM emissions modeled were eliminated, the resulting visibility benefits would be negligible. However, when modeling its “baseline” scenario, instead of using the proposed BART limits, WDNR modeled a mix of actual, potential, assumed, and allowable PM<sub>10</sub> emissions. While the WDNR analysis demonstrates that the emissions modeled do not significantly impair visibility, it does not follow that the proposed BART limits would likewise not impair visibility because the

proposed BART limits are, in some cases, more than an order of magnitude greater than the emission rates modeled.

For example, WDNR Table C6 shows that Columbia unit B21 was modeled at its maximum actual PM10 emission rate of 19 grams/sec. To convert this emission rate to lb PM10/mmBtu, we compared it to the 70 grams/sec of NOx modeled for this boiler which, according to Table C6, is equivalent to 0.10 lb/mmBtu. A simple ratio indicates that Columbia B21 was modeled at 0.027 lb PM10/mmBtu, which is about 50% higher than the 0.019 lb PM10/mmBtu emission rate shown for this boiler in WDNR Table C2. However, WDNR has proposed that BART for Columbia B21 is 0.60 lb PM10/mmBtu, more than 20 times greater than the emissions modeled.

The WDNR modeling exercise only demonstrates that elimination of the modeled emissions would have no significant visibility benefit. Instead, WDNR must show that the proposed BART limits for PM10 have no significant impact on visibility in order to successfully demonstrate that a full five-factor BART analysis is unnecessary.

#### **Part IV Section 5 Reasonable Progress**

Please add a description of the MRPO modeling that supports the reasonable progress determinations listed in Table 8 and illustrated in Figure 3.

WDNR cites the BART emissions reductions for Georgia Pacific as additional evidence that actual visibility improvements will be better than modeled. Please add discussion of back trajectory analyses and a map illustrating Georgia Pacific's location and distance relative to the Class I areas to support this assertion. Wisconsin does not provide evidence to support the assertion that the Transport Rule "will likely ensure reductions by 2019 at least equivalent" to CAIR. Given that the modeled progress by 2018 is very close to the uniform rate of progress at all four Class I areas, it is not certain that the actual emission reductions under the Transport Rule will be sufficient to meet the uniform rate of progress.

There is no certainty or schedule for control of Industrial Commercial and Institutional Boilers. WDNR has not provided evidence to support its conclusion that there will be greater emissions reductions by 2018 than modeled.

WDNR has not included the required reasonable progress four factor analysis to evaluate what additional emission reductions are feasible and reasonable. WDNR needs to evaluate its emission sources and demonstrate that the State is making reasonable progress in reducing anthropogenic emissions. WDNR cites the four factor analysis prepared for MRPO by the contractor EC/R<sup>1</sup> for possible further controls on EGU, but does not cite the controls analyzed for industrial sectors by EC/R. This analysis should be completed for the major industrial source sectors represented in Wisconsin.

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<sup>1</sup>[http://www.ladco.org/reports/rpo/consultation/products/reasonable\\_progress\\_for\\_class\\_i\\_areas\\_in\\_the\\_northern\\_midwest-factor\\_analysis\\_draft\\_final\\_technical\\_memo\\_july\\_18\\_2007.pdf](http://www.ladco.org/reports/rpo/consultation/products/reasonable_progress_for_class_i_areas_in_the_northern_midwest-factor_analysis_draft_final_technical_memo_july_18_2007.pdf)

Several states have used emissions (Q, tons per year) divided by distance (d, kilometers) as a screening method to prioritize which stationary sources to consider in a reasonable progress analysis. If WDNR considered a Q/d for SO<sub>2</sub> +NO<sub>x</sub> = 10 for sources with emissions of SO<sub>2</sub>+NO<sub>x</sub> greater than 200 tons/year, WDNR would likely be able to focus the reasonable progress analysis on specific stationary sources within a few major source categories.

#### **Part IV Section 6 Long Term Strategy**

WDNR outlines the major existing control programs that are being implemented. WDNR briefly addresses requirements to minimize emissions from construction activities and the smoke management plan for controllable fire activities.

The Federal Land Managers request that WDNR acknowledge the connection between new emission permitting under New Source Review and the Regional Haze Rule visibility improvement goals to return to natural background visibility conditions by 2064. Consistent with the requirement of 40 CFR 51.307(c), we ask that WDNR commit to ensuring that permitting of new and modified sources through the State's New Source Review program is consistent with making reasonable progress toward the visibility goals of the Wisconsin Regional Haze SIP.