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

IN REPLY REFER TO:

January 3, 2011

N3615 (2350)

Ken Ritter
Air Programs Branch
IDEM Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

Dear Mr. Ritter:

On November 5, 2010, we received Indiana'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 (NPS), in consultation with the U.S. Fish and Wildlife Service (FWS), has received and conducted a substantive review of your revised 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 regarding our comments, please contact Pat Brewer at (303) 969-2153.

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

Sincerely,

John Bunyak
Acting Chief, Air Resources Division

Enclosures

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

National Park Service Comments
Indiana Draft Regional Haze State Implementation Plan (SIP)
January 3, 2011

The National Park Service received Indiana's draft regional haze state implementation plan (SIP) on November 5, 2010. The National Park Service, in consultation with the Fish and Wildlife Service, has reviewed the draft plan consistent with the priorities that we detailed to Indiana in a letter dated August 2006. Our comments below address those priorities. We are available to assist Indiana in addressing our recommendations.

There are no Class I areas within the State of Indiana. Indiana Department of Environmental Management (IDEM) cites the monitoring analyses and regional inventory and modeling by the Midwest Regional Planning Organization (MRPO) and the neighboring Regional Planning Organizations (RPOs) as evidence that Indiana is meeting the requirements of the regional haze rule. However, additional documentation in the Indiana SIP is necessary to describe the pollutant contributions to visibility impairment at Class I areas impacted by Indiana and how emissions controls that are underway or planned in Indiana are sufficient to demonstrate reasonable progress by Indiana in reducing visibility impairment. Specific examples of additional documentation are described below.

Chapter 2 Regional Planning
IDEM has identified 19 Class I areas that are impacted by Indiana emissions. Table 1 in Appendix 1 lists the specific Class I areas that Indiana impacts and cites the technical analyses that support that determination. It would be helpful to include Table 1 in the SIP Chapter 2.

Chapter 4 Baseline Conditions, Pollutant Contribution, Uniform Rate of Progress
IDEM cites work of MRPO and other states but does not provide any information to illustrate the baseline visibility conditions, the pollutant contributions, and the needed visibility improvement. We recommend that IDEM pick a Class I area from each region and include in Chapter 4 a summary of pollutant contributions in the baseline period for the average of the 20% worst days and monthly or daily time series from the IMPROVE data to illustrate the temporal variation in pollutant contributions.

As part of the contribution assessment IDEM should explicitly state which pollutants would be most effective to control to improve visibility at the impacted Class I areas. We also recommend illustrating the glidepaths for the uniform rate of progress for the selected Class I areas or at least adding these data to the Appendices and citing in Chapter 4 where the data can be found.

Chapter 5 Emissions Inventory
This chapter very briefly summarizes the methods used by the MRPO to develop the 2005 and future year inventories. Please include the MRPO Technical Support Document as an Appendix.

Table 3 summarizes the Electric Generating Unit (EGU) projections from the Integrated Planning Model (IPM) Version 3.0 for three scenarios. Please provide more detailed explanation

how the three scenarios differ and explicitly why sulfur dioxide (SO_2) and nitrogen oxides (NO_x) emissions for Indiana are lower in Scenario 5a than Scenarios 5b and 5c.

IDEM needs to discuss the projected emissions changes between 2005 and 2018 as evidence that Indiana is making reasonable progress. Table 4 does not appear to be cited or discussed in the text, yet this is the most important data for demonstrating Indiana's emission reductions. Please provide emissions summaries in Table 4 as tons/year rather than tons/day to avoid questions how to account for weekly and seasonal variability to scale to tons/year values.

Chapter 6 Modeling Assessment

IDEM relies on the MRPO modeling. Please include the MRPO Technical Support Document in an Appendix. A discussion of model performance is necessary to demonstrate confidence in model projections. There is not an Attainment Test for regional haze; you could delete the Section 6.2 header and cover the material under Section 6.1.

The wording in the last paragraph on page 22 is confusing as written. Please clarify your intent. If model results are less than the uniform rate of visibility improvement does that mean greater visibility improvement than the uniform rate?

The scenario terms used in Tables 6 and 7 are not the same as described in Chapter 5 Emissions Inventory. Please explain how the terms for the emissions assumptions in Tables 6 and 7 relate to the scenarios in Table 4. How does "Will Do" compare to Scenario 5a, 5b, or 5c? Do the "Will Do" adjustments pertain only to the EGU sector? Please provide additional clarification on what assumptions are included in the modeled scenarios.

Chapter 7 Reasonable Progress Goals

Please add reference to Appendix 1 for contribution assessments from MRPO and other RPOs and Appendix 2 for letters from states requesting consultation.

We agree that based on the contribution assessments presented in Appendix 1 and 3 and in sections 7.2-7.9, Indiana sources have comparatively small contributions to Class I areas in neighboring states.

To comply with the Regional Haze Rule Sections 308(d)(3)(ii) and (iv), IDEM still needs to demonstrate that it has included in its long term strategy all measures needed to achieve its share of emission reductions and to identify all anthropogenic sources of visibility impairment considered in developing the long term strategy. IDEM has cited modeling results of MRPO and neighboring RPOs, but IDEM still needs to evaluate its emission sources and demonstrate using a four factor analysis that Indiana is making reasonable progress in reducing anthropogenic emissions. This demonstration should evaluate the monitoring, emissions inventory, and modeling data to determine which pollutants are most important to control, what reductions are already expected by 2018, what source categories are major contributors in 2018, and evaluate the four factors for those major source categories. The MRPO provided a four factor analysis for major source categories that IDEM could cite in evaluating what control measures are feasible and reasonable for specific stationary sources.

Several states have used emissions (Q) divided by distance (d) as a screening method to prioritize which stationary sources to consider in a reasonable progress analysis. If IDEM considered a Q/d for SO_2 +NO_x = 10 for sources with emissions of SO_2+NO_x greater than 200 tons/year, IDEM would likely be able to focus the reasonable progress analysis on specific stationary sources within a few major source categories. The VISTAS and CENRAP Areas of Influence are another method to identify which sources in Indiana should be evaluated for reasonable progress.

Chapter 8 Best Available Retrofit Technology (BART)

Please add greater description of the data presented in Table 10, BART-eligible Electric Generating Units (EGU) covered by the Clean Air Interstate Rule (CAIR) and discuss the implications in the text. Does Table 10 cover all EGU in Indiana including those units that are BART-eligible, those units listed by MANE-VU, and all other units? Please clarify what assumptions were used for each column. Does column "2009 + Projected" include only legally enforceable controls? What criteria were used to include a future control date? Does each succeeding column to the right include only controls that were not included in previous columns? If the LADCO column is empty does that mean that the controls assumed by IPM are legally enforceable and included in the LADCO modeling or not legally enforceable and not included in the LADCO modeling? Please make clear in the text that controls modeled by IPM Version 3.0 are estimates and may not be legally required.

Section 8.4 BART Exemptions for ArcelorMittal-Burns Harbor, ESSROC-Speed, and SABIC

Based on our conference call on December 13, 2010, we understand that the ammonia values used in the final BART exemption modeling differed from the values cited in the MRPO BART modeling protocol. We request that IDEM update this section to clarify the revised ammonia values that better reflect measured values in the region. Because the visibility impacts of the three sources did not exceed the contribution threshold using the revised ammonia values, if IDEM updates the cited analytical methods to reflect the revisions, we can support the BART exemptions.

Section 8.7 BART determination for Alcoa

We question whether it is valid to take credit as a BART Alternative for SO_2 and NO_x reductions that were required under New Source Performance Standards (NSPS) when Alcoa increased the capacities of Boilers 1, 2, and 3. Boilers 2 and 3 are subject to BART; Boiler 1 is not. Boiler 4 is classified as an EGU and is also subject to BART. Wet flue gas desulfurization (FGD) scrubbers were installed on all boilers in 2008. For SO_2, NSPS requires 90% control. IDEM proposes to use SO_2 reductions for Boiler 1 to offset the difference between BART (92% control) and proposed controls (90% control) for Boilers 2 and 3. IDEM credits the scrubber installed on Unit 1 as achieving significantly higher reductions in SO_2, equal to approximately 21,600 tons, than would be achieved by BART. However we understand that because Boiler 1 was required by NSPS to reduce SO_2 emissions by 90%, Alcoa can take credit in the BART Alternative for only the difference between the required 90% reduction and the proposed 91% reduction at Boiler 1. We do not believe that it is valid to use reductions that are required by permit to meet NSPS at Boiler 1 to also satisfy BART for the Boilers 2 and 3.

Alcoa and IDEM have underestimated the efficiency of scrubbers (95%) and Selective Catalytic Reduction, SCR (90%). As well, Alcoa and IDEM are also proposing to increase SO_2 and PM emissions from BART sources (potlines) above current levels. We do believe that the existing analyses support the determination that the BART Alternative is better than BART.

Our detailed comments on the BART determination are attached.

Chapter 9 Long Term Strategy

Indiana needs to provide a more complete discussion of the long term strategy. The Strategy should list all the existing control programs that Indiana is implementing. Does the State have rules to limit emissions from construction sources? Indiana appears to rely on existing controls under CAIR or the proposed Transport Rule and existing federal requirements to reduce mobile sources. The State has not discussed any controls or consideration of controls beyond those required for other regulatory purposes.

The Federal Land Managers request that Indiana 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. We recommend that the State commit to considering the visibility impacts as part of the New Source Review.