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Date: December 10, 2007

Mr. Doyle Childers  
Director  
Missouri Department of Natural Resources  
P.O. Box 176  
Jefferson City, MO 65102-0176

Dear Director Childers:

On November 1, 2007, Missouri Department of Natural Resources (MDNR) submitted a draft State Implementation Plan (SIP) describing its proposal to improve air quality regional haze impacts at mandatory Class I areas across your region. I appreciate the opportunity to work with your agency 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 our Class I Wilderness Areas and parks.

The main purpose of this letter is to acknowledge that the U.S. Forest Service has received and completed a substantive review of your proposed Regional Haze Rule SIP. As the official FLM for the Class I Area of Hercules Glades, I feel that your agency has provided me with the opportunity to review and comment on this comprehensive regional haze SIP. As such, my specific comments regarding this plan are provided in an enclosure to this letter. However, I recognize that only the U.S. Environmental Protection Agency (EPA) can make a final determination about the document's completeness, and therefore, only the EPA has the ability to approve the document. The Forest Service's participation in the State of Missouri's administrative process does not waive any legal defenses or sovereignty rights it may have under the laws of the United States, including the Clean Air Act and its implementing regulations.

As outlined in a letter to you dated October 13, 2006, our review focused on eight basic content areas. Those content areas reflect priorities for the federal land management agencies, and the comments I have enclosed with this letter are associated with these priorities.

The FS has several concerns with the Plan as proposed; these concerns are articulated in our enclosure. We look forward to your response required by 40 CFR 51.308(i)(3) and look forward to working with you to resolve these concerns.



Doyle Childers

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For further information, please contact Chuck Sams at (414-297-3529) or Ann Mebane at (307) 578-8241. Again, we appreciate the opportunity to review Missouri's draft Regional Haze Rule SIP.

Sincerely,

/s/ Paul I.V. Strong  
PAUL I.V. STRONG  
Acting Forest Supervisor

Enclosure

cc:

Chuck Sams/R9  
Paul Stockinger/R9  
Tom Doane/R9  
Ann Acheson/R9  
Kris Swanson

*Enclosure*

***Forest Service Technical Comments on Missouri DNR's Draft Regional Haze State Implementation Plan***

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**Overall Comments**

As stated in our letter, we appreciate the opportunity to work with your agency through the initial evaluation, development, and, now, subsequent review of this plan. We appreciate the changes that occurred based on the FLM/MDNR conference call which occurred September 25, 2007. Several of these changes related to MDNR providing their rationale on how they reached a decision within their SIP. However, we still have overall concerns regarding:

- 1) The interpretation that Uniform Rate of Progress equals the Reasonable Progress goal,
- 2) That no reasonable progress goal was established for the 20% best visibility days
- 3) That requests were not honored from states such as Minnesota and Oklahoma specifically requesting emission reductions commensurate with impact from Missouri
- 4) The lack of appropriate application of the four factor analysis

We are also concerned about the relationship between the Regional Haze Plan and the Prevention of Significant Deterioration (PSD) permitting process. The Regional Haze Rule seeks to improve visibility on the haziest days, while allowing no degradation on the clearest days, by focusing primarily on existing emissions sources and incremental improvement by 2018. Prevention of Significant Deterioration also seeks no degradation of visibility on the clearest days, but focuses on new sources of pollution that will be operating for many years into the future. The two "programs" have a similar goal of no degradation on the clearest days, but have different processes and timeframes for reaching the goal. Given the uncertainty in the new source growth estimates used to develop the 2018 emissions inventory, and ultimately the 2018 visibility projections, we feel it would be appropriate for the state to discuss the relationship between the Regional Haze Plan and requirements of the Prevention of Significant Deterioration (PSD) program within the SIP. Specifically, how does Missouri anticipate addressing new sources of air pollution in the PSD process in regards to its reasonable progress goals and long term strategy; and, how will it analyze the affect of new emissions from these new sources on progress toward the interim visibility goals established under this SIP, as well as the ultimate goal of natural background visibility by 2064?

Finally, we recognize that the Regional Planning Organizations have provided significant resources to the states throughout the Regional Haze planning process, and that it will be detrimental to the state agencies if these resources are no longer available for subsequent planning and periodic SIP reviews. We will strongly encourage the EPA to maintain support for the Regional Planning Organizations and the integrated technical analyses that will be necessary as we begin tracking reasonable progress for the Class I areas under the Regional Haze State Implementation Plans.

### **Specific Comments**

The following comments are organized by Section of the draft SIP.

#### ***Executive Summary:***

Page 7, Paragraph 4, Missouri states that the Class I areas in Missouri will meet the 2018 Reasonable Progress Goal. As displayed in later sections of the SIP, Missouri states their rational adopting the Uniform Rate of Progress as equal to the Reasonable Progress Goal. This is counter to our understanding of the Regional Haze Rule requirements and is discussed later in this document.

#### ***Section 1.0 Background***

Page 11, paragraph 2 – Missouri states that emissions sources within Missouri have or may have impacts on Hercules Glades and Mingo Class I areas in MO, and Caney Creek and Upper Buffalo Class I areas in Arkansas.. Through earlier RPO discussions, technical documents, and interstate consultations, emissions from Missouri have been identified as effecting visibility in the Boundary Waters Canoe Area in MN. As such and as stated in our previous comments, this Class I area should also be listed in this section.

#### ***Section 2.0 General Planning Requirements***

Page 13, Second paragraph – We appreciate that Missouri addressed our previous comments and commits to leading the consultation process in the future.

#### ***Section 4.0 Coordination and Consultation***

Page 17, Third paragraph – Please see our comment regarding Section 1.0 above; the Forest Service believes the Boundary Waters Canoe Area should be added to the Class I areas reasonably anticipated to be impacted by Missouri. We would also like to note that the Boundary Waters Canoe Area in MN is not projected to meet the Uniform Rate of Progress for their area. Further, please clarify the last two sentences of this paragraph: “The state’s coordination with FLMs on long-term strategy development is described in Chapter 11. The consultation was completed based on a determination that reasonable progress was achieved by contributing states”. It is unclear from this document what states contributed to achieving reasonable progress. Also we understand the Boundary Waters Canoe Area is not projected to meet even the Uniform Rate of Progress. Further, based on the Regional Haze Rule, we disagree that the Reasonable Progress goal equals uniform rate of progress: “The State may not adopt a reasonable progress goal that represents less visibility improvement than is expected to result from implementation of other requirements of the CAA during the applicable planning period.” (See 40 CFR 51.308(d)(1)(B)(vi).). Page 17, Section 4.2 – This section describes the cost effectiveness of controlling sources in other states compared to those in Missouri for visibility impacts to the Boundary Waters Canoe Area in MN and the Wichita Mountains in Oklahoma. While we appreciate that sources in Missouri would not contribute as much visibility impairment to these Class I areas as closer sources, the Regional Haze Rule directs a state to consider its share of emissions reductions necessary to meet the progress

goal for that area ((40 CFR 51.308(d)(3)(ii)). Additional emission reductions can make a significant difference. For example, the CENRAP C1 control strategy indicates Wichita Mountains would move closer to meeting the Uniform Rate of Progress (from 61% to 81%) and the Boundary Waters Canoe Area would move from 69% to 93% closer to meeting the Uniform Rate of Progress. This is especially highlighted by Minnesota's "ask" of Missouri. And although it "may not be reasonable to control Missouri sources at the same level as Minnesota sources", it does seem reasonable to at least evaluate the **additional** controls requested by Minnesota.

### ***Section 7.0: Emissions Inventory***

Page 32 - We appreciate the emissions inventory compiled in Tables 7.1 and 7.2. However, as mentioned in our previous comments, the narrative that accompanies these tables leads a reader to understand that these emissions "cause or contribute to visibility impairment" in a Class I area. If so which Class I areas? The Forest Service would like to see a discussion of the Area of Influence of these emissions for the affected Class I areas. 40 CFR 51.308 (d)(4)(ii) requires Missouri to state the "procedures by which monitoring data and other information are used in determining the contribution of emissions from within the state to regional haze visibility impairment at mandatory Class I Federal areas both within and outside the State." Also, as communicated on the FLM/MDNR conference call, does Missouri intend to update the inventory periodically?

### ***Section 8.0 Modeling Assessment***

Page 46 - We appreciate the discussion that occurs in this section related to the differences in the visibility projections of the different RPO's. Of concern, however, is the MRPO modeling which indicated that the Missouri Class I Areas would not be able to achieve the Uniform Rate of Progress. Missouri acknowledges that it is unclear why the projections are different but considers that it may be due to different emissions inventory. However, it would be more worthwhile to discuss what differences actually occurred in the two inventories so that one could assess which modeling scenario best represents impacts at the affected Class I areas.

### ***Section 10.0 Reasonable Progress Goals***

Page 61 – First paragraph – The end of this paragraph states that Missouri adopts the Uniform Rate of Progress as the Reasonable Progress Goal for 2018 for the Class I areas in Missouri. However, this is inconsistent with the Regional Haze Rule which says: "The State may not adopt a reasonable progress goal that represents less visibility improvement than is expected to result from implementation of other requirements of the CAA during the applicable planning period." (See 40 CFR 51.308(d)(1)(B)(vi).) Since the 2018 projections include no additional controls beyond "on the books", and these results show more improvement than the Uniform Rate of Progress, the citation listed above should lead Missouri to adopt the results of the modeling as the minimum Reasonable Progress Goal for 2018

The Regional Haze Rule also requires that States establish Reasonable Progress Goals for the Best 20% days, based upon projected emission reductions for the future planning

year. Neither section 10 nor any other area of the Draft SIP addresses the goals for the Best 20% days.

At the beginning of Section 10 of the Draft SIP, MDNR outlines the four statutory factors that each State must consider in setting its Reasonable Progress Goals. These factors are intended to be applied holistically, across all contributing sources of visibility impairing pollutants, to inform the decision being made by the State. However, it appears from the remaining discussion within this section that MDNR is only applying this “four-factor analysis” to the CAIR-affected and BART-affected sources within Missouri. In effect, therefore, the Draft SIP essentially does not include the required four-factor analysis for non-EGUs in establishing the Reasonable Progress Goals.

Page 62 – Second paragraph - We are confused by this paragraph which state “the 2018 visibility goals for Mingo and Hercules Glades have been largely achieved through EGU emission reductions” and that the four factor analyses had been conducted by EPA, CENRAP and other RPOs. Although background and reference material was prepared by these entities, it is the responsibility of the States to apply the four factor analysis appropriately. Also see our comments above regarding the statement that the BART analysis equals the four factor analysis.

***Section 11.0 Long-Term Strategy to Reach Reasonable Progress Goals***

Page 63, second paragraph - We thought the Central Class I areas consultation referred to in the SIP had ended. Please clarify the status of this group.

The previous version of the draft State Implementation Plan listed those Class I areas which Missouri would reasonably be anticipated to impact. Such a list in this location is useful. We recommend including the appropriate list here again.

Pg. 69 - BART – Missouri states that it will include BART controls proposed by the other impacting states in its Long Term Strategy. Since not all of these BART determinations are completed, what is the mechanism Missouri will use to adjust its Reasonable Progress Goal based on other states’ final BART determinations?

Pg. 72 – Additional controls beyond CAIR – This section refers to the 2018 Reasonable Progress Goals for Mingo and Hercules Glades Class I areas. We assume you mean the Uniform Rate of Progress goal for 2018? While we agree that the CAIR controls are very cost-effective, Missouri has made no showing that additional cost effective controls are not available. For example, CENRAP developed control strategy “C1” which demonstrated the effectiveness of additional controls showed significant visibility improvements at the Class I areas. If Missouri chooses not to consider the “C1” strategy, we ask Missouri to explain its rationale for not selecting a strategy which would achieve greater reductions than its present strategy.

Pg. 74 - Source Retirement and replacement schedule - the Draft SIP discusses how it will manage retirement and replacement of stationary sources, and references existing State and Tribal “requirements pertaining to Prevention of Significant Deterioration (PSD) and New Source Review (NSR).” Please elaborate on how the PSD and NSR

permitting programs will be utilized by MDNR as part of its Long Term Strategy for meeting Reasonable Progress Goals.

Pg. 74 – Smoke Management Plan – Since the previous draft of the Regional Haze SIP, the Forest Service has formally commented on Missouri’s draft Smoke Management Plan as part of the public review process. In that Plan, Missouri described that it had not documented smoke contributing significantly to visibility impairment in Class I areas (pg. 8, MDNR Smoke Management Plan, August 2007). Because this is an important point to the RH SIP process, and to be consistent with the Smoke Management Plan, we ask that you also document this fact in this section. Based upon this point and as reflected in your proposed Smoke Management Plan, it appears the current prescribed fire smoke management techniques implemented in Missouri are adequate to protect visibility in the Class I areas. In addition, the pending adoption of a Smoke Management Plan for Missouri should provide additional protection. If you concur, we suggest your agency note these points in the final SIP.

We appreciate the statement that the Smoke Management Plan is not be included in the Missouri SIP so that it maintains maximum flexibility to be modified on an as-needed basis without having to go through a SIP revision, or waiting for long periods of evaluation such as required by the Regional Haze review cycle. Further because the Interim Air Quality Policy is due to be revised by July 2008, it may prudent to omit the specific elements of the Interim Policy from this Regional Haze document to help maintain that flexibility.

**Pg. 78 – Determination of the Adequacy of the Existing Plan**

As mentioned in our previous comments, the Forest Service would like to see greater detail in this section related to judging adequacy of the existing plan. For example, how will Missouri determine if the plan is adequate? How will Missouri determine if any inadequacy is due to emissions from Missouri or other states/areas? If it is due to Missouri sources, what plan revisions will be made?

***Verification and Contingencies***

Finally, as mentioned in previous discussions and letters, the Forest Service requests Missouri to consider how the plan accounts for and reconciles both unexpected and reasonably foreseeable emissions growth, changes to the geographic distribution of emissions, and substantive discrepancies that may be found in emission inventories or other technical bases of the SIP. As an example, the predictions of the “IPM” model and the assumptions for CAIR implementation that were used to project the future 2018 electric utility generation industry sources and emissions may be greatly different from the outcomes that are actually realized in that future year. Such factors, as well as other unanticipated circumstances, may adversely affect Missouri’s ability to achieve the emissions reductions projected by the SIP. Considering these factors through adaptive management or routine review processes may assist in mitigating these circumstances.