



# United States Department of the Interior

OFFICE OF THE SECRETARY

Washington, D.C. 20240

JAN 11 2008

In Reply Refer To:  
FWS/ANRS-NR/034492

Glenn Shankle, Executive Director  
Texas Commission  
on Environmental Quality  
Mail Code 109  
Post Office Box 13087  
Austin, Texas 78711-3087

Dear Mr. Shankle:

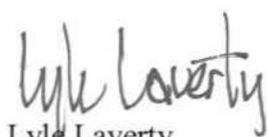
On November 16, 2007, the State of Texas submitted a proposed State implementation plan (SIP) describing its proposal to improve air quality regional haze impacts at mandatory Class I areas across your region (reference TCEQ project number 2007-016-SIP-NR). Technical appendixes that are referenced in the SIP were received from the State on November 26, 2007. The Fish and Wildlife Service (FWS) and National Park Service (NPS) received and have conducted substantive review of your draft Regional Haze Rule implementation plan, prepared in fulfillment of your requirements under regulations 40 CFR 51.308(i)(2).

We appreciate the opportunity to work closely with the State through the initial evaluation, development, and review process of this plan. Please note that only the Environmental Protection Agency (EPA) can make a final determination regarding the document's completeness and therefore its 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, which reflect priorities for the Federal Land Management agencies. We have enclosed comments associated with each of these content areas. In general, our review of the State of Texas draft plan indicates a need to more completely address the land management agency priorities. We request that further consultation take place with this prior to final adoption of the Texas Regional Haze Plan. The FWS and NPS air quality staffs stand ready to work with you towards resolution of these issues. We look forward to your response, as per section 40 CFR 51.308(i) (3). Specific questions regarding the review of and consultation on the draft plan may be directed to Mr. Tim Allen, Fish and Wildlife Service Branch of Air Quality, at (303) 914-3802, or Bruce Polkowsky (NPS) at (303) 987-6944.

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

Sincerely,

A handwritten signature in black ink that reads "Lyle Laverty". The signature is written in a cursive, slightly slanted style.

Lyle Laverty  
Assistant Secretary for  
Fish and Wildlife and Parks

Enclosure

**U.S. Fish and Wildlife Service and National Park Service Comments Regarding  
Texas Proposed Regional Haze Rule State Implementation Plan  
(TCEQ project number 2007-016-SIP-NR)**

On November 16, 2007, the State of Texas submitted a Proposed 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 National Park Service (NPS). Technical appendixes that are referenced in the SIP were received from the State on November 26, 2007.

The air program staff of these Federal Land Management (FLM) agencies have conducted a substantive review of the Texas Proposed SIP, and provide the comments listed below. The comments which are highlighted in **bold face** discuss what we consider major shortcomings of the proposed SIP that we believe warrant additional consultation prior to final adoption of the Texas Regional Haze Plan.

We are providing these comments to the State and wish them to be placed in the official public record. We look forward to your response as per section 40 CFR 51.308(i)(3), and are prepared to work with the Texas Commission on Environmental Quality (TCEQ) staff towards resolving the major issues discussed below. For further information, please contact Tim Allen (FWS) or Bruce Polkowsky (NPS) at (303) 914-3802 and (303) 987-6944, respectively.

**Overall Comments**

*Attribution and Reasonable Progress Considerations – Class I Areas Outside of Texas*

The reasonable progress analyses are missing specific information about Texas's contributions to visibility impairment at the **Wichita Mountains Wilderness Area (FWS managed) in Oklahoma or other out-of-State Class I areas. Although the Proposed SIP references that the TCEQ consulted with Oklahoma at their request, the Texas Proposed SIP fails to document how emissions and impacts from Texas' sources were addressed. The FWS requests that an analysis based on an area of influence be developed and a full reasonable progress evaluation covering Texas' sources be established for the Wichita Mountains Wilderness Area. The same is needed for the Salt Creek Wilderness Area (FWS managed) and Carlsbad Caverns National Park (NPS managed) in New Mexico, as well as the Forest Service's Caney Creek Wilderness Area in Arkansas and White Mountains Wilderness Area in New Mexico.**

*Attribution and Reasonable Progress Goals – Texas Class I Areas*

In establishing reasonable progress goals, the State of Texas fails to establish a sufficient relationship between the most attributable sources for visibility impacts and the affected Class I areas. Throughout the document, it is difficult to ascertain what geographical source region and which sources contained within that region, TCEQ considered when establishing the total costs for visibility improvement at the two Class I National Parks within Texas. As such, there is insufficient response to the statutory four factor analysis to show that controls at specific sources on a cost per ton basis are

unreasonable. The NPS requests that TCEQ identify specific geographic regions, based upon area of influence studies, that encompass the most important visibility-affecting emission sources for Big Bend National Park (NP) and for Guadalupe Mountains NP (both NPS managed) and focus its reasonable progress analyses for these two in-State Class I areas on those geographic regions. Please identify significant point (Texas highlighted point sources as the primary control sources) sources in those areas-of influence and conduct a thorough reasonable progress analysis with more specific four-factor responses for that source region.

#### *Uncertainty of CAIR implementation and ongoing PSD/NSR review*

We are troubled by TCEQ's response to an apparent large uncertainty associated with implementation of the Clean Air Interstate Rule (CAIR) and ongoing Prevention of Significant Deterioration/New Source Review (PSD/NSR) permitting program efforts. Although the State identifies clear conflicts with emission inventories developed by CENRAP,<sup>1</sup> with the Integrated Planning Model (IPM) predictions of large electric generation utility growth results, and with the unwillingness of participating CAIR sources to commit to particular emission levels, it is extremely concerning that the State has elected to wait and see how the uncertainty unfolds as part of the required five-year review. Inaction due to uncertainty is not prudent public policy, since it places all risk on the visibility resource at the Class I areas and does not ensure reasonable progress as required by the Clean Air Act and EPA's regulations.

The federal Regional Haze rule mandates that each State develop a plan to make progress toward visibility impairment at Class I areas. Although TCEQ concludes that the already planned controls between now and 2018 are reasonable, it fails to address how multiple issues which prevent the State from accurately determining future emissions from specific sources will result in anything more than a toss of the dice with respect to addressing Texas' substantial contribution to visibility improvement at Class I areas inside and outside of its territory. At a very minimum, the FWS and NPS request that the State develop areas of influence and associated major source lists within these zones as a precursor to a focused five-year review. The State should also establish in the regional haze SIP a process for ongoing discussions and consultations with neighboring States and FLMs on the progress of CAIR and PSD/NSR efforts.

#### *Recalculation of Natural Conditions*

TCEQ elected to recalculate natural conditions for Big Bend NP and Guadalupe Mountains NP in western Texas. Although 40 CFR 51.308 gives the State that right, reestablishing the natural condition has a significant and profound effect on progress over the 10 year planning period and beyond. Considering the potential outcome of such a recalculation, the State also bears the responsibility to fully disclose the associated consequences for making such a decision.

The State should fully and clearly summarize the reasons, methods, and consequence of these calculations by providing sufficient information on how the State's

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<sup>1</sup> Central Regional Air Planning Association (CENRAP) is an organization of states, tribes, federal agencies and other interested parties that identifies regional haze and visibility issues and develops strategies to address them. CENRAP is one of the five Regional Planning Organizations (RPOs) across the U.S. and includes the states and tribal areas of Nebraska, Kansas, Oklahoma, Texas, Minnesota, Iowa, Missouri, Arkansas, and Louisiana.

**progress would display given the Environmental Protection Agency (EPA) default natural values. At key locations in the Proposed SIP, TCEQ suggests projections of progress using the EPA defaults are available in an appendix. It is important for the State to summarize these results using EPA defaults and present them side by side with the State's modified values within the main body of the SIP narrative.**

The remaining comments provided below are organized according to the priorities that we presented in our August 1, 2006, letter. Many of the following comments will provide additional direction towards building the narrative of the Proposed SIP to satisfy the overall concerns noted above.

### **Baseline, Natural Conditions, Uniform Rate**

1. On page 5-3 of the Proposed SIP, Section 5.3 discusses the State's use of revised natural conditions estimates for the most and least impaired days at Big Bend NP and Guadalupe Mountains NP. We have reviewed Appendix 5.2 and find that the basic approach used to adjust natural conditions is reasonable, provided that the Proposed SIP address the uncertainty of the assumption that all of the coarse mass and fine soil fraction on the worst 20 percent days is natural. **Since there is human activity in the region, the State should provide a rationale for what fraction of soil and coarse mass is natural, and present an alternative where that fraction of the coarse mass and fine soil concentrations are assumed to be natural within the SIP narrative. In addition, we request that the SIP narrative include the default EPA predictions of natural conditions so that the reader can better understand the scope of changes Texas has chosen to make and can judge the effect of the State's choice on efforts to assess reasonable progress later in the SIP. Default values of natural conditions should be included in Table 5-2.** It would also help the reader to summarize how the refinement affects the revised natural condition if the State included a chart showing the breakdown of each basic pollutant component. This would give a non-technical reader a simple reference about which components in the haze calculation were changed and by how much.
2. Both the SIP narrative (Section 5.1.1) and Appendix 5-2 (Section 5.1) explain the 40 CFR 51.308(d)(2)(iii) provision that affords each state the ultimate responsibility for calculating natural conditions for Class I areas that are within that state. The SIP and appendix also explain that EPA guidance allows for states to derive "refined" estimates of natural conditions as an alternative to utilizing the "default" estimates. It is on these bases that Texas has chosen to pursue alternative methods for establishing natural conditions for Big Bend NP and Guadalupe Mountains NP, which are located within the State of Texas. However, on page ES-1, the Executive Summary to the SIP narrative states that, "The TCEQ used a refined estimate of natural conditions for Class I areas in Texas *and other states* as permitted by EPA guidance," (emphasis added). Based upon past discussions with Texas and neighboring States, we are unaware of any other States in the area that have chosen to adopting the alternative natural conditions calculation approaches that TCEQ has elected. **Therefore, we request that the Texas SIP specifically agree with its neighboring States' use of the EPA-IMPROVE default natural conditions estimates for the neighboring States' Class I areas. In doing so, Texas would acknowledge that those States will be**

using EPA-IMPROVE calculations when addressing the possible need for additional controls on some Texas air pollution sources when setting reasonable progress goals for Class I areas outside of Texas. This is particularly important as it pertains to Carlsbad Caverns NP, in New Mexico just northeast of Texas' Guadalupe Mountains NP, since these two Class I areas share the same IMPROVE monitor. Furthermore, in its evaluations of Texas sources' impacts to Class I areas located in other States, TCEQ needs to use the metric and approach that is selected by the State where each respective Class I area is located.

3. Section 5.2 of the Proposed SIP discusses baseline visibility conditions for the Big Bend NP and Guadalupe Mountains NP Class I areas, and references data provided on the "Visibility Information Exchange Web System" (VIEWS) that derives the baseline conditions. CIRA recently updated the calculations of baseline due to errors found in two different calculations. Please check with the VIEWS web site and verify that estimates used in the Proposed SIP are current.
4. Please note that within Appendix 5-1 the document makes reference to information available through an internet "ftp" website (see Section 5.2 of that appendix). The link that is provided is to a site that is password protected, and not publicly available.

### **Emission Inventories**

5. Near the bottom of page 7-1 of the SIP narrative, the document states: "The SO<sub>2</sub> emissions modeled by the CENRAP are significantly higher than the 15,633 tons per year (TPY) reported by the TCEQ..." After searching both the SIP narrative and its appendices, we cannot determine whether this is referring to the total of all SO<sub>2</sub> emissions, or a specific category of emissions. The paragraph continues, saying, "CENRAP's modeled emissions estimate is not expected to significantly impact visibility estimates for 2018 because of the relatively small contribution from these Texas sources on Class I areas." However, figure 11-6 on page 11-5 of the SIP narrative suggests that Texas sources' emissions constitute the majority of visibility impact at the Wichita Mountains Wilderness Class I Area in Oklahoma. Figures 11-5 and 11-9 show similar results for the Salt Creek Wilderness Area (New Mexico) and Caney Creek Wilderness Area (Arkansas), respectively; and the data in Table 1 of Appendix 10-1 indicates that Texas sources' emissions have a great impact at the White Mountains Wilderness Area (New Mexico). **Please explain the specific difference between the reported TCEQ SO<sub>2</sub> inventory and the CENRAP modeled inventory that this paragraph attempts to address, as well as the rationale for why TCEQ considers Texas' contribution to visibility impairment in neighboring States' Class I Areas to not be significant.**
6. On page 7-2, Table 7-3 shows that emission estimates of organics, primary particulates and ammonia are predicted to increase during the planning period (years 2002 to 2018). The text references both Appendix 7-1 and the CENRAP technical support document. (Note that the text says that this CENRAP TSD is not included in with the SIP, directing the reader to the CENRAP website; however, Appendix 8-1 to the SIP is this CENRAP TSD.) While these supporting documents do contain discussions of the 2018-year emissions inventory

development, the specific supporting information is often difficult to locate, especially within the extensive CENRAP TSD. We suggest that TCEQ include a summary within the SIP narrative of why estimates predict increases in organics, primary particulates, ammonia, and area source SO<sub>2</sub>, together with a discussion of how much these increases are expected to affect visibility impairment at both Texas' and neighboring States' Class I areas. This discussion should also consider the effects of emission decreases projected for sulfur and nitrogen products.

7. In Chapter 8, Figures 8-4 and 8-5 (on pages 8-15 and 8-16) are intended to support the discussion of model performance evaluation. Please explain why the tables are referencing the Typ02g base year inventory instead of the actual 2002 performance inventory.
8. Further, there is a considerable amount of discussion in the Proposed SIP stating that emissions used by CENRAP and others for modeling were greater than the inventory reported by TCEQ. But, Figures 8-4 and 8-5 utilize the CENRAP typical base year inventory of 2002, and consistently show significant under prediction of all visibility impact parameters when compared to observed values. Although the model is later used in a relative sense (employing relative reduction factors (RRFs)), it is important for the State to address this apparent discontinuity between text describing a significant over estimate of SO<sub>2</sub> emissions and model performance metrics that indicate a significant under estimate.
9. Section 8.4.17 states that off-shore emissions were held constant through the planning period. But, Figure 11-10 (page 11-8) showing predicted 2018 attribution to the worst 20 percent visibility days indicates that Gulf of Mexico contributions are significant. Many of the off-shore gas and oil development activities are under U.S. controlled permit programs. Please explain why these emissions were not grown into the future and accounted for consistent with other similar on-shore emissions.
10. Section 8.4.17 presents a discussion of relative response factors and the two methods of applying RRFs created by the CENRAP organization (beginning on page 8-17). We greatly appreciate your summary of these concepts being presented in the main body of the SIP. It is very important to inform the non-technical reader how these complex models are applied in a relative sense.

### **Best Available Retrofit Technology (BART)<sup>2</sup>**

11. The overview of BART in the EXECUTIVE SUMMARY says, "...This SIP revision contains a list of BART-eligible sources and the determination of BART for each source that is reasonably anticipated to contribute to visibility impairment (BART-subject)." This

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<sup>2</sup> 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."

statement is misleading, since in the SIP itself TCEQ finds that none of its sources is, “BART-subject,” and thus there is no BART determination provided at all.

12. The Regional Haze rule establishes BART criteria for exempting sources that are determined to be non-significant. EPA offers an upper bound to that single source significance level at 0.5 dv. The State must provide a discussion or justification how it arrived at its selected threshold value. In the case of Texas, it appears that BART controls may have a cumulative affect on Class I area visibility and that a lower value than EPA’s upper bound for BART exemption may have produced a noticeable difference. At a minimum, a lower threshold level could have provided the State with important specific source information on these sources.
13. It was difficult to verify the status of the 120 “BART-Eligible Sources Based on Results of TCEQ Survey” that are listed in Table 9-1 of the Proposed SIP narrative. The following discussion outlines our understanding of the disposition of these 120 “BART-eligibles.” Please verify this interpretation.

Section 9.2 of the Proposed SIP narrative explains the options and provides lists of sources that exempted through CAMx screening (72 sources, listed in Table 9-2), CALPUFF individual source modeling (29 sources listed in Table 9-3), and CAMx individual source modeling (6 sources listed in Table 9-4). This accounts for 107 of the 120 BART-eligible sources. But, Section 9.3 immediately follows, stating: “Upon conclusion of all BART screening analyses, no Texas sources remained subject to BART.”

The paragraph just above Section 9.2.1 (on page 9-5 of the Proposed SIP) ends saying: “BART-eligible sources that did not screen out in any of the modeling analyses had the option of reducing the emissions from their BART-eligible units using an enforceable mechanism, such as a permit, or performing an engineering analysis. The BART-eligible sources that chose to reduce potential emissions are discussed in Section 9.4. The emission reductions resulting from the engineering analyses and resulting emission controls are presented in Section 9.5.” (Note that the cited passage indicates that emissions reductions from these facilities are presented in Section 9.5; however, Section 9.5 moves on to a different topic.)

Table 9-6 in Section 9.4 lists the sources that chose to reduce emissions (page 9-11). There are nine facilities listed here. However, one of these (EXXONMOBIL OIL, account # JE0067I) also appears on the list of sources exempted through individual CALPUFF modeling in Table 9-3. So, there are eight additional sources accounted for, yielding a total of 115 of the original list of 120 BART-eligibles in Table 9-1.

Section 9.5 and Table 9-7 provides a list of 22 sites that, “requested removal from further BART consideration per the exemptions in the [January 10, 2007, TCEQ BART] rule or based on updated information on the site.” Among this list are the five remaining facilities from the original list, plus seven of the nine facilities listed in Section 9.4 (Table 9-6), two of the facilities identified in Section 9.2.1 (Table 9-2), and eight additional facilities that were not part of the original list of 120 BART-eligible sources.

We understand that the “exemption list” of Section 9.5/Table 9-7 is broader than the original survey of BART-eligible sources (Table 9-1), and that it was derived some five years later after the finalization of TCEQ’s BART rule.

14. The two tables in Section 9.2.2 “Individual Source Attribution Approach,” identify the BART-Eligible sources that were exempted after performing source-specific BART engineering determinations through either CALPUFF modeling (Table 9-3) or CAMx modeling (Table 9-4). It would be helpful to list the modeled visibility impact results for each of these facilities in these tables (i.e., Class I area(s), deciview impact(s) and distance/direction information for each Class I area evaluated in the individual source modeling analyses). This information would provide the reader with a quick reference of the relative importance of each listed facility that was exempted through individual source attribution modeling. In addition, those BART-eligible sources that have impacts near the BART exemption threshold applied by TCEQ would form a basis for reasonable progress evaluations for affected Class I areas.
15. Table 9-6 of the Proposed SIP (page 9-11) identifies nine facilities that reduced a total of 9,488 tons per year of visibility impairing pollutants (NO<sub>x</sub>, SO<sub>2</sub>, and PM<sub>10</sub>) through voluntary potential-to-emit emission reductions. The Proposed SIP references “Appendix 9-10: *Documentation of Emission Reductions*,” as providing the supporting information for this table. Within that appendix, there is a table labeled “Table 9-11.1 Changes in Emissions” (see fifth page of the electronic file APP9\_10.PDF). The data in the appendix table cites a total reduction of visibility impairing pollutants of approximately 18,650 tons per year. The primary difference is the amounts listed for ExxonMobil Oil (JE0067I). The first table (Table 9-6 of the Proposed SIP) footnotes this source, saying “ExxonMobil numbers are preliminary and subject to change....” We understand that this facility’s emissions estimate is dependent upon the outcome of a national consent decree. It is important that the emission rates used by the facility to become exempt from BART control technology requirements (whether through source-specific exemption modeling or reducing emissions to qualify for removal from further consideration under the TCEQ BART rule) are in fact realized by the BART-eligible units at this facility. Please reconcile the differences between the two tables and provide more definite information regarding the ExxonMobil facility.

### **Area of Influence**

16. As stated in the letter from the NPS and FWS dated August, 2006, subdividing a geographic area in order to place emphasis on sources that have the highest potential to provide benefit to reducing visibility impairment is important. In large geographic states such as Texas or Alaska, establishing these areas of influence (AOI) are very important for describing appropriate cost benefit arguments, since evaluations applied on a state-wide basis are often not relevant for any specific Class I area. We ask that such areas be clearly identified by some geographic means, and to encompass sources that have the most visibility impairing significance for a given Class I area. In the case of Texas, CENRAP has already generated AOI information. Samples that include geographic extent and significant source information were included by the State of Oklahoma as part of the briefing package for its consultation calls. Although those examples are specific to Wichita Mountains, AOIs were produced for all CENRAP Class I areas. **Since existing and predicted future visibility impairment at many nearby Class I areas outside of Texas is more attributable to Texas’ emissions than those of the host States, it is also important to confer with the host States when**

**generating and refining these AOIs and when interpreting whether controls at specific contributing sources are cost beneficial.**

17. The NPS and FWS request that TCEQ develop and adopt an AOI approach to best define cost benefit information when concluding reasonable progress factors. Class I sites that should be included, in addition to the two National Park Class I areas located in Texas, are the following Wilderness Areas: Salt Creek (FWS managed, in New Mexico), Wichita Mountains (FWS managed, in Oklahoma), Caney Creek (Forest Service managed, in Arkansas), and White Mountains (Forest Service managed, in New Mexico).

#### **Reasonable Progress Goals; Long Term Strategy**

18. Section 10.2 of the Proposed SIP presents TCEQ's Reasonable Progress Goals for the two Class I areas located within the State. Earlier in this enclosure, we commented regarding TCEQ's refined estimates for natural conditions at these Class I areas. **Just as we requested that the SIP also include the default values established by EPA for comparison, we ask that the Reasonable Progress discussion in Section 10.2 also present for comparison the glide path and 2018-year reasonable progress goals reflecting the default EPA-based estimates of natural condition.**
19. **On page 10-2, Section 10.2 of the Proposed SIP states that Appendix 10-1 provides an analysis of the four factors identified by statute as required for setting reasonable progress goals, and concludes that based upon these factors the goals are reasonable. The information in that appendix should be summarized in the main body of the SIP and should clearly state the decision of the State on a Class I basis. In addition, please note that this appendix, as well as most of the appendices for the Proposed SIP, is only "available upon request" at the TCEQ's website. Since significant portions of the rationale for TCEQ's Proposed Regional Haze SIP are contained within the appendices, these should be posted for public examination along with the SIP narrative document.**
20. **Appendix 10-1 presents information for Texas' reasonable progress controls and the four factors analysis. This summary is a required element in the Regional Haze rule and should be included in the main body of the SIP. Additional references cited in the reasonable progress discussion, including the Alpine Geophysics, CENRAP, and EPA works should be included for review as appendices. Although the narrative portion of Appendix 10-1 presents an argument to conclude that additional controls are not reasonable, supporting information on how the controls were tested is neither provided nor described. Tables 6 through 10 of the appendix appear to include information that is not relevant to the narrative description. The tables include information on sources likely to impair visibility at Class I areas other than Guadalupe Mountains NP and Big Bend NP, yet present cost estimates that are in the ballpark of those quoted in the narrative. No narrative information is provided regarding cost benefit of controlling sources that may impair Class I areas outside Texas.**

**Please present information on how the controls were analyzed and provide tables specific to each Class I area. Please include analysis for all Class I areas to which Texas contributes.**

21. The beginning discussion of Appendix 10-1 identifies the Class I areas for which emissions originating in Texas contribute 20 percent or more to visibility impairment. The basis for the 20 percent cutoff is unclear. Following the initial discussion of the pollutants and broad source categories of concern, the rest of this Appendix uses only the two in-State Class I areas to determine whether any additional controls would be reasonable and ignores the reasonable progress goals and potential visibility improvement at Class I areas in other states.

Chapter 10 of the SIP should directly address apportionment of impacts from Texas' sources to Class I areas outside the borders of Texas, and measures that Texas will pursue to address these impacts. This seems particularly lacking with respect to the Wichita Mountains Wilderness Area. As outlined elsewhere in the Proposed SIP, apportionment from the PSAT modeling exercises show more contribution from Texas' sources than from those in Oklahoma. During the Oklahoma consultation conference call, the State of Oklahoma identified source regions shown through modeling to significantly contribute to visibility impairment at Wichita Mountains. For both SO<sub>2</sub> and NO<sub>x</sub>, the identified source regions extend well into the State of Texas.

Please provide a justification for the 20 percent contribution cutoff that TCEQ has used, as well as detailed information on how the State of Texas has evaluated reasonable control levels for its sources that impact Class I areas in other States. At a minimum, this should include the Wichita Mountains, Salt Creek, Caney Creek, White Mountain, and Carlsbad Caverns Class I areas.

22. Section 10.3 discusses the CAIR program's interaction with the Regional Haze plan. The uncertainty of CAIR controls is made quite clear in Texas with regard to purchased emission credits and source unwillingness to make control commitments. This level of uncertainty can have a heavy influence on the ability of the State to predict or meet visibility goals into the future. This is especially significant within a State that is as large as Texas. The appearance of a net reduction of emissions due to CAIR may still result in an overall increase of emissions within an area of influence surrounding a specific Class I area. Yet, the State manages this uncertainty by stepping back and waiting five years for the first SIP review. This approach, although quite respectful of CAIR, appears flawed in light of the information already received by the State.

Significant visibility impacts on many Class I areas inside and outside Texas due to impacts from Texas sources, as demonstrated in the various CENRAP Class I area source apportionment and Area of Influence studies, will continue to be observed, even after implementation of CAIR and other already-enacted programs outlined in the Proposed SIP. Therefore, it is important to determine specific initiatives beyond BART and CAIR that might be considered for the period before the 2013 interim review and the 2018 regional haze SIP update are required. **At a very minimum, TCEQ should identify areas of influence for each Class I area and develop a list of the significant point sources within that area to form the primary basis to better evaluate the progress of those sources within the CAIR framework.**

23. On page 10-5, Section 10.4 discusses international sources of visibility impairment at the two Texas Class I areas. Table 10.7 presents data from the CENRAP PSAT modeling analysis which tracked contributions from many geographic areas to the sulfate and nitrate

components of extinction. These assessments do not necessarily reflect the contribution for other aerosols. Thus, Texas should clarify whether Table 10-7 is referring to total contribution to extinction or contributions to sulfate and nitrate impairment based on the CENRAP tracking model.

24. In addition, the text associated with Table 10-7 implies that the boundary conditions contribution to impairment is primarily from Central America. The CENRAP modeling assessment did not differentiate among five large-scale model boundaries when compiling data for sulfates and nitrates. It is also important for TCEQ to acknowledge that a portion of boundary conditions may be a result of recirculation of Texas and other U.S.-generated emissions. The Proposed SIP should note that boundary conditions are highly uncertain and that contributions from *within* the model boundaries may be significantly higher.
25. We agree that Mexico emissions contained within the boundaries of the CENRAP modeling domain are important contributors to visibility impairment at Big Bend NP and Guadalupe Mountains NP. We request that Texas acknowledge the work contained in the final Big Bend Regional Aerosol and Visibility Observational (BRAVO) study. The report and supporting data can be found at <http://www2.nature.nps.gov/air/studies/bravo/index.cfm>. This extensive BRAVO field study indicates that sources in Mexico, Texas and the eastern U.S. all play a role in sulfate conditions at Big Bend NP. We look forward to working with Texas to solicit EPA action with its sister agencies to address the Mexico portion of sulfate impairment at Big Bend. We also request that the Proposed SIP speak to the Texas contribution to sulfate found in the BRAVO field study in the Long Term Strategy and reasonable progress sections.
26. A November 16, 2007, cover memo from the TCEQ Chief Engineer to the Commissioners, outlines a “potentially controversial matter” under discussion between TCEQ, neighboring States, and the FLMs, regarding notification and opportunity to participate in new/modified Texas source permitting actions that may affect air quality related values, including visibility, at Class I areas. Some months ago, we learned that Texas was providing notification only for major-source actions within 100 km of Class I areas. The Proposed SIP and its supporting documentation show that haze-causing pollutants transport and have impacts at much greater distances. We have formally asked that the FLM agencies be notified of actions out to 300 km from our Class I areas, and Oklahoma sent a letter requesting similar consideration. The cover memo indicates that “[TCEQ} plans to work directly with the FLMs to try to resolve their concerns... [and] committed to keep Oklahoma informed of those discussions....]” We eagerly await continued dialogue to resolve this matter.

The only place that New Source Review/Prevention of Significant Deterioration (NSR/PSD) permitting is addressed in the Proposed SIP is in Section 11.6.3. This Section outlines that Best Available Control Technology requirements already included in the Texas regulations will apply to all emissions increases at new or modified units. This discussion, however, does not indicate that the new or modified sources will need to evaluate their emissions’ impacts to Class I area visibility. Please elaborate on how the NSR/PSD permitting programs will be utilized by TCEQ as part of its Long Term Strategy for meeting Reasonable Progress Goals.

27. At TCEQ's request, the CENRAP PSAT source apportionment modeling divided Texas into three regions: East Texas, TX Gulf Coast, and West Texas. Figures 11-4 and 11-7 of the Proposed SIP present impacts of only West Texas emissions on visibility impairment for Class I areas in New Mexico and Colorado, respectively. These graphics are misleading regarding the total impact of sources across Texas to these out-of-State Class I areas. For instance, Figure 11-5 shows that sulfate impacts at the Salt Creek Wilderness from sources in the East Texas are nearly the same as those from West Texas. Throughout the Proposed SIP, representation of impacts from Texas' sources should show and acknowledge contributions across the entire state.

### **Fire**

28. Section 11.4.4 of the Proposed SIP discusses fire and smoke management issues in Texas as they relate to the Regional Haze SIP. This Section identifies Appendix 11-1 as containing several specific fire management plans and other such documents. Please note, however, that the CD that transmitted the electronic copy of the appendices contains only an empty folder labeled Appendix 11-1.

That said, we recommend that TCEQ reference the fire and smoke management plans in a way that does not require SIP updates each time a fire/smoke plan is updated. Depending upon Texas' administrative procedures, this may indicate that the documents should not be contained in the appendix, but rather referenced as "living documents" and summarized in the SIP.

29. Please indicate whether Texas intends to "certify" its Smoke Management System as provided for by the 1998 EPA Interim Air Quality Policy on Wildland and Prescribed Fire.

30. The Proposed SIP and the smoke management plans described in its Section 11.4.4 should identify appropriate nearby Class I areas (both the two within Texas as well as those located in neighboring States) as smoke sensitive areas and prescribed burners should be required to apply the appropriate smoke management techniques to minimize smoke impacts.

31. The Proposed SIP states that wildfire emissions are assumed to remain the same looking forward over the ten-year planning period. However, the SIP should identify if prescribed burning emissions are proposed to decline, stay the same, or increase.

32. It is appropriate to declare smoke plans as a contributing program for visibility protection, but neither the State or RPO evaluated performance resulting from this or any specific smoke management component. If the State wants to speak to not making a change to the SMP, it should simply state that it is unreasonable to make modifications due to the low smoke apportionment or low priority of pollutant selection.

### **Regional Consistency**

33. Because the components of haze transport over great distances, attribution and controls must be considered at a multi-State level. The State's Proposed SIP clearly indicates that attribution from Texas emissions, in whole or part (since Texas was subdivided into three

PSAT areas for modeling), not only contribute to visibility impairment at Class I areas outside the Texas boundary, but in fact these Texas emissions are clearly contributing at levels greater than those of the host State. This seems quite apparent at the Salt Creek, Wichita Mountains, White Mountains, and Caney Creek Wilderness Areas. **As such, we have a great expectation that the State of Texas will not only demonstrate progress towards visibility goals in these out-of-State Class I areas (as part of the Texas plan's reasonable progress discussion), but also show a great deal of effort in consulting and planning with these neighboring States. This expectation is quite analogous to Texas asking EPA to better control international emissions in order to make progress in Texas. The States of New Mexico, Oklahoma and Arkansas receive even larger percentages of total attribution to visibility impairment at their Class I areas from Texas sources than Texas' Class I areas receive from international sources.**

**The State of Texas should provide additional documentation and summaries on efforts to not only discuss impacts, but ways that the States planned to work together to make progress in Class I areas where Texas is the majority contributor. In other words, because the State is not only a contributor, but the majority contributor, additional efforts should be shown to demonstrate multi-State controls. This should be further extended to demonstrate consistent control levels.**

### Verification & Contingencies

34. Chapter 6 of the Proposed SIP discusses the ongoing and future monitoring strategy for measuring visibility parameters and progress at the Class I areas within Texas. Section 6.1 identifies the Regional Haze Rule regulatory requirement of 40 CFR §51.308(d)(4) for a monitoring strategy to measure, characterize, and report regional haze visibility impairment representative of all mandatory Class I areas. TCEQ explains that this is accomplished through the IMPROVE monitoring network, and states that it will, “continue to participate in the [IMPROVE] network through the financial support of the EPA... [and also] through its membership in the CENRAP as long as the EPA continues to fund the CENRAP adequately.” While we recognize that to date the IMPROVE network has been funded mostly through federal monies, it is important to note that the responsibility described at 40 CFR §51.308(d)(4) rests with the State, so that it can assess ongoing progress towards reaching the goals set in this SIP, as well as for inform future SIP revision and planning activities required under the national Regional Haze Rule. We share your interest with maintaining the IMPROVE network, and we are aware that there is a degree of uncertainty regarding the future of any individual monitoring site. The SIP should address the representativeness of both primary and alternative data sites, and also provide a more specific plan for ensuring that monitoring is continued regardless if national funding is not available.
35. Section 6.1 describes the current funding for the IMPROVE network to be primarily EPA with some funding from NPS. Please note that all the FLM agencies with Class I area management responsibilities (including FWS and FS) contribute to the establishment and operation of the IMPROVE monitoring network.
36. Furthermore, in Section 6-4, the Proposed SIP states: “If Texas collects any visibility monitoring data through the state's air quality monitoring networks, the TCEQ will report

those data to the EPA as specified under the Performance partnership Grant agreement....” Please clarify whether TCEQ has plans for additional visibility monitoring strategies, either as a supplement to the IMPROVE network, or for the possible outcome should the IMPROVE network become unable to fully supply information at some point in the future.

### **Coordination & Consultation**

37. In both Sections 4.3 and 11.2, the Proposed SIP states that Arkansas and Missouri have accepted the Texas emission plan regarding their respective Class I areas, and that Texas was invited to and participated in consultation calls with Oklahoma regarding the Wichita Mountains Wilderness Area. However, the portion of the Proposed SIP that discusses the Oklahoma consultations fails to explain any issues that were discussed or conclusions that were reached regarding Texas sources’ contribution to visibility impairment at Wichita Mountains. Rather, it simply suggests that Texas joined the consultation conference call. The Proposed SIP needs to fully explain the pertinent issues discussed and agreements reached through consultation activities to address all Class I areas where Texas’ emissions are important contributors to visibility impairment, and not just the two Class I areas located within Texas.
  
38. The two Sections referenced above also indicate that there has been some communication with other States (specifically identifying New Mexico, Louisiana, and Colorado), but that no formal consultation has occurred with Texas regarding Class I areas located in these States. Although these states have not invited Texas to formal participation in their consultation process, this is, in some cases, simply a function of those States’ timing, and not an implicit acceptance of Texas’ long term strategy. Regardless of whether a neighboring State has initiated formal consultation, it is still important that the Proposed SIP address Texas sources’ impacts on Class I areas located in those other States. Chapter 11 of the Proposed SIP presents information regarding apportionment of haze-causing pollutants, including Texas’ emissions. However, the Proposed SIP is silent about reasonable controls for sources that have large impacts at outside-Texas Class I areas.