

Appendix A

Regional Haze Program Requirements, 40 CFR 51.308

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40 CFR Ch. I (7-1-06 Edition)

or major modification may have an adverse impact on visibility in any Federal Class I area. Where the State finds that such an analysis does not demonstrate to the satisfaction of the State that an adverse impact will result in the Federal Class I area, the State must, in the notice of public hearing, either explain its decision or give notice as to where the explanation can be obtained.

(b) The plan shall also provide for the review of any new major stationary source or major modification:

(1) That may have an impact on any integral vista of a mandatory Class I Federal area, if it is identified in accordance with § 51.304 by the Federal Land Manager at least 12 months before submission of a complete permit application, except where the Federal Land Manager has provided notice and opportunity for public comment on the integral vista in which case the review must include impacts on any integral vista identified at least 6 months prior to submission of a complete permit application, unless the State determines under § 51.304(d) that the identification was not in accordance with the identification criteria, or

(2) That proposes to locate in an area classified as nonattainment under section 107(d)(1)(A), (B), or (C) of the Clean Air Act that may have an impact on visibility in any mandatory Class I Federal area.

(c) Review of any major stationary source or major modification under paragraph (b) of this section, shall be conducted in accordance with paragraph (a) of this section, and § 51.166(o), (p)(1) through (2), and (q). In conducting such reviews the State must ensure that the source's emissions will be consistent with making reasonable progress toward the national visibility goal referred to in § 51.300(a). The State may take into account the costs of compliance, the time necessary for compliance, the energy and nonair quality environmental impacts of compliance, and the useful life of the source.

(d) The State may require monitoring of visibility in any Federal Class I area near the proposed new stationary source or major modification for such purposes and by such means as

the State deems necessary and appropriate.

[45 FR 80089, Dec. 2, 1980, as amended at 64 FR 35765, 35774, July 1, 1999]

§ 51.308 Regional haze program requirements.

(a) *What is the purpose of this section?* This section establishes requirements for implementation plans, plan revisions, and periodic progress reviews to address regional haze.

(b) *When are the first implementation plans due under the regional haze program?* Except as provided in § 51.309(c), each State identified in § 51.300(b)(3) must submit, for the entire State, an implementation plan for regional haze meeting the requirements of paragraphs (d) and (e) of this section no later than December 17, 2007.

(c) [Reserved]

(d) *What are the core requirements for the implementation plan for regional haze?* The State must address regional haze in each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the State which may be affected by emissions from within the State. To meet the core requirements for regional haze for these areas, the State must submit an implementation plan containing the following plan elements and supporting documentation for all required analyses:

(1) *Reasonable progress goals.* For each mandatory Class I Federal area located within the State, the State must establish goals (expressed in deciviews) that provide for reasonable progress towards achieving natural visibility conditions. The reasonable progress goals must provide for an improvement in visibility for the most impaired days over the period of the implementation plan and ensure no degradation in visibility for the least impaired days over the same period.

(i) In establishing a reasonable progress goal for any mandatory Class I Federal area within the State, the State must:

(A) Consider the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially

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affected sources, and include a demonstration showing how these factors were taken into consideration in selecting the goal.

(B) Analyze and determine the rate of progress needed to attain natural visibility conditions by the year 2064. To calculate this rate of progress, the State must compare baseline visibility conditions to natural visibility conditions in the mandatory Federal Class I area and determine the uniform rate of visibility improvement (measured in deciviews) that would need to be maintained during each implementation period in order to attain natural visibility conditions by 2064. In establishing the reasonable progress goal, the State must consider the uniform rate of improvement in visibility and the emission reduction measures needed to achieve it for the period covered by the implementation plan.

(ii) For the period of the implementation plan, if the State establishes a reasonable progress goal that provides for a slower rate of improvement in visibility than the rate that would be needed to attain natural conditions by 2064, the State must demonstrate, based on the factors in paragraph (d)(1)(i)(A) of this section, that the rate of progress for the implementation plan to attain natural conditions by 2064 is not reasonable; and that the progress goal adopted by the State is reasonable. The State must provide to the public for review as part of its implementation plan an assessment of the number of years it would take to attain natural conditions if visibility improvement continues at the rate of progress selected by the State as reasonable.

(iii) In determining whether the State's goal for visibility improvement provides for reasonable progress towards natural visibility conditions, the Administrator will evaluate the demonstrations developed by the State pursuant to paragraphs (d)(1)(i) and (d)(1)(ii) of this section.

(iv) In developing each reasonable progress goal, the State must consult with those States which may reasonably be anticipated to cause or contribute to visibility impairment in the mandatory Class I Federal area. In any situation in which the State cannot

agree with another such State or group of States that a goal provides for reasonable progress, the State must describe in its submittal the actions taken to resolve the disagreement. In reviewing the State's implementation plan submittal, the Administrator will take this information into account in determining whether the State's goal for visibility improvement provides for reasonable progress towards natural visibility conditions.

(v) The reasonable progress goals established by the State are not directly enforceable but will be considered by the Administrator in evaluating the adequacy of the measures in the implementation plan to achieve the progress goal adopted by the State.

(vi) 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.

(2) *Calculations of baseline and natural visibility conditions.* For each mandatory Class I Federal area located within the State, the State must determine the following visibility conditions (expressed in deciviews):

(i) Baseline visibility conditions for the most impaired and least impaired days. The period for establishing baseline visibility conditions is 2000 to 2004. Baseline visibility conditions must be calculated, using available monitoring data, by establishing the average degree of visibility impairment for the most and least impaired days for each calendar year from 2000 to 2004. The baseline visibility conditions are the average of these annual values. For mandatory Class I Federal areas without onsite monitoring data for 2000–2004, the State must establish baseline values using the most representative available monitoring data for 2000–2004, in consultation with the Administrator or his or her designee;

(ii) For an implementation plan that is submitted by 2003, the period for establishing baseline visibility conditions for the period of the first long-term strategy is the most recent 5-year period for which visibility monitoring data are available for the mandatory Class I Federal areas addressed by the plan. For mandatory Class I Federal

areas without onsite monitoring data, the State must establish baseline values using the most representative available monitoring data, in consultation with the Administrator or his or her designee;

(iii) Natural visibility conditions for the most impaired and least impaired days. Natural visibility conditions must be calculated by estimating the degree of visibility impairment existing under natural conditions for the most impaired and least impaired days, based on available monitoring information and appropriate data analysis techniques; and

(iv)(A) For the first implementation plan addressing the requirements of paragraphs (d) and (e) of this section, the number of deciviews by which baseline conditions exceed natural visibility conditions for the most impaired and least impaired days; or

(B) For all future implementation plan revisions, the number of deciviews by which current conditions, as calculated under paragraph (f)(1) of this section, exceed natural visibility conditions for the most impaired and least impaired days.

(3) *Long-term strategy for regional haze.* Each State listed in § 51.300(b)(3) must submit a long-term strategy that addresses regional haze visibility impairment for each mandatory Class I Federal area within the State and for each mandatory Class I Federal area located outside the State which may be affected by emissions from the State. The long-term strategy must include enforceable emissions limitations, compliance schedules, and other measures as necessary to achieve the reasonable progress goals established by States having mandatory Class I Federal areas. In establishing its long-term strategy for regional haze, the State must meet the following requirements:

(i) Where the State has emissions that are reasonably anticipated to contribute to visibility impairment in any mandatory Class I Federal area located in another State or States, the State must consult with the other State(s) in order to develop coordinated emission management strategies. The State must consult with any other State having emissions that are reasonably an-

ticipated to contribute to visibility impairment in any mandatory Class I Federal area within the State.

(ii) Where other States cause or contribute to impairment in a mandatory Class I Federal area, the State must demonstrate that it has included in its implementation plan all measures necessary to obtain its share of the emission reductions needed to meet the progress goal for the area. If the State has participated in a regional planning process, the State must ensure it has included all measures needed to achieve its apportionment of emission reduction obligations agreed upon through that process.

(iii) The State must document the technical basis, including modeling, monitoring and emissions information, on which the State is relying to determine its apportionment of emission reduction obligations necessary for achieving reasonable progress in each mandatory Class I Federal area it affects. The State may meet this requirement by relying on technical analyses developed by the regional planning organization and approved by all State participants. The State must identify the baseline emissions inventory on which its strategies are based. The baseline emissions inventory year is presumed to be the most recent year of the consolidate periodic emissions inventory.

(iv) The State must identify all anthropogenic sources of visibility impairment considered by the State in developing its long-term strategy. The State should consider major and minor stationary sources, mobile sources, and area sources.

(v) The State must consider, at a minimum, the following factors in developing its long-term strategy:

(A) Emission reductions due to ongoing air pollution control programs, including measures to address reasonably attributable visibility impairment;

(B) Measures to mitigate the impacts of construction activities;

(C) Emissions limitations and schedules for compliance to achieve the reasonable progress goal;

(D) Source retirement and replacement schedules;

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(E) Smoke management techniques for agricultural and forestry management purposes including plans as currently exist within the State for these purposes;

(F) Enforceability of emissions limitations and control measures; and

(G) The anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the long-term strategy.

(4) *Monitoring strategy and other implementation plan requirements.* The State must submit with the implementation plan a monitoring strategy for measuring, characterizing, and reporting of regional haze visibility impairment that is representative of all mandatory Class I Federal areas within the State. This monitoring strategy must be coordinated with the monitoring strategy required in § 51.305 for reasonably attributable visibility impairment. Compliance with this requirement may be met through participation in the Interagency Monitoring of Protected Visual Environments network. The implementation plan must also provide for the following:

(i) The establishment of any additional monitoring sites or equipment needed to assess whether reasonable progress goals to address regional haze for all mandatory Class I Federal areas within the State are being achieved.

(ii) 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.

(iii) For a State with no mandatory Class I Federal areas, 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 in other States.

(iv) The implementation plan must provide for the reporting of all visibility monitoring data to the Administrator at least annually for each mandatory Class I Federal area in the State. To the extent possible, the State should report visibility monitoring data electronically.

(v) A statewide inventory of emissions of pollutants that are reasonably anticipated to cause or contribute to visibility impairment in any mandatory Class I Federal area. The inventory must include emissions for a base-line year, emissions for the most recent year for which data are available, and estimates of future projected emissions. The State must also include a commitment to update the inventory periodically.

(vi) Other elements, including reporting, recordkeeping, and other measures, necessary to assess and report on visibility.

(e) *Best Available Retrofit Technology (BART) requirements for regional haze visibility impairment.* The State must submit an implementation plan containing emission limitations representing BART and schedules for compliance with BART for each BART-eligible source that may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area, unless the State demonstrates that an emissions trading program or other alternative will achieve greater reasonable progress toward natural visibility conditions.

(1) To address the requirements for BART, the State must submit an implementation plan containing the following plan elements and include documentation for all required analyses:

(i) A list of all BART-eligible sources within the State.

(ii) A determination of BART for each BART-eligible source in the State that emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area. All such sources are subject to BART.

(A) The determination of BART must be based on an analysis of the best system of continuous emission control technology available and associated emission reductions achievable for each BART-eligible source that is subject to BART within the State. In this analysis, the State must take into consideration the technology available, the costs of compliance, the energy and nonair quality environmental impacts of compliance, any pollution control

equipment in use at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

(B) The determination of BART for fossil-fuel fired power plants having a total generating capacity greater than 750 megawatts must be made pursuant to the guidelines in appendix Y of this part (Guidelines for BART Determinations Under the Regional Haze Rule).

(C) *Exception.* A State is not required to make a determination of BART for SO₂ or for NO_x if a BART-eligible source has the potential to emit less than 40 tons per year of such pollutant(s), or for PM₁₀ if a BART-eligible source emits less than 15 tons per year of such pollutant.

(iii) If the State determines in establishing BART that technological or economic limitations on the applicability of measurement methodology to a particular source would make the imposition of an emission standard infeasible, it may instead prescribe a design, equipment, work practice, or other operational standard, or combination thereof, to require the application of BART. Such standard, to the degree possible, is to set forth the emission reduction to be achieved by implementation of such design, equipment, work practice or operation, and must provide for compliance by means which achieve equivalent results.

(iv) A requirement that each source subject to BART be required to install and operate BART as expeditiously as practicable, but in no event later than 5 years after approval of the implementation plan revision.

(v) A requirement that each source subject to BART maintain the control equipment required by this subpart and establish procedures to ensure such equipment is properly operated and maintained.

(2) A State may opt to implement an emissions trading program or other alternative measure rather than to require sources subject to BART to install, operate, and maintain BART. To do so, the State must demonstrate that this emissions trading program or other alternative measure will achieve greater reasonable progress than would

be achieved through the installation and operation of BART. To make this demonstration, the State must submit an implementation plan containing the following plan elements and include documentation for all required analyses:

(i) A demonstration that the emissions trading program or other alternative measure will achieve greater reasonable progress than would have resulted from the installation and operation of BART at all sources subject to BART in the State. This demonstration must be based on the following:

(A) A list of all BART-eligible sources within the State.

(B) An analysis of the best system of continuous emission control technology available and associated emission reductions achievable for each source within the State subject to BART. In this analysis, the State must take into consideration the technology available, the costs of compliance, the energy and nonair quality environmental impacts of compliance, any pollution control equipment in use at the source, and the remaining useful life of the source. The best system of continuous emission control technology and the above factors may be determined on a source category basis. The State may elect to consider both source-specific and category-wide information, as appropriate, in conducting its analysis.

(C) An analysis of the degree of visibility improvement that would be achieved in each mandatory Class I Federal area as a result of the emission reductions achievable from all such sources subject to BART located within the region that contributes to visibility impairment in the Class I area, based on the analysis conducted under paragraph (e)(2)(i)(B) of this section.

(ii) A demonstration that the emissions trading program or alternative measure will apply, at a minimum, to all BART-eligible sources in the State. Those sources having a federally enforceable emission limitation determined by the State and approved by EPA as meeting BART in accordance with § 51.302(c) or paragraph (e)(1) of this section do not need to meet the requirements of the emissions trading program or alternative measure, but may choose to participate if they meet

the requirements of the emissions trading program or alternative measure.

(iii) A requirement that all necessary emission reductions take place during the period of the first long-term strategy for regional haze. To meet this requirement, the State must provide a detailed description of the emissions trading program or other alternative measure, including schedules for implementation, the emission reductions required by the program, all necessary administrative and technical procedures for implementing the program, rules for accounting and monitoring emissions, and procedures for enforcement.

(iv) A demonstration that the emission reductions resulting from the emissions trading program or other alternative measure will be surplus to those reductions resulting from measures adopted to meet requirements of the CAA as of the baseline date of the SIP.

(v) At the State's option, a provision that the emissions trading program or other alternative measure may include a geographic enhancement to the program to address the requirement under § 51.302(c) related to BART for reasonably attributable impairment from the pollutants covered under the emissions trading program or other alternative measure.

(3) A State which opts under 40 CFR 51.308(e)(2) to implement an emissions trading program or other alternative measure rather than to require sources subject to BART to install, operate, and maintain BART may satisfy the final step of the demonstration required by that section as follows: If the distribution of emissions is not substantially different than under BART, and the alternative measure results in greater emission reductions, then the alternative measure may be deemed to achieve greater reasonable progress. If the distribution of emissions is significantly different, the State must conduct dispersion modeling to determine differences in visibility between BART and the trading program for each impacted Class I area, for the worst and best 20 percent of days. The modeling would demonstrate "greater reasonable progress" if both of the following two criteria are met:

(i) Visibility does not decline in any Class I area, and

(ii) There is an overall improvement in visibility, determined by comparing the average differences between BART and the alternative over all affected Class I areas.

(4) A State that opts to participate in the Clean Air Interstate Rule cap-and-trade and trade program under part 96 AAA-EEE need not require affected BART-eligible EGU's to install, operate, and maintain BART. A State that chooses this option may also include provisions for a geographic enhancement to the program to address the requirement under § 51.302(c) related to BART for reasonably attributable impairment from the pollutants covered by the CAIR cap-and-trade program.

(5) After a State has met the requirements for BART or implemented emissions trading program or other alternative measure that achieves more reasonable progress than the installation and operation of BART, BART-eligible sources will be subject to the requirements of paragraph (d) of this section in the same manner as other sources.

(6) Any BART-eligible facility subject to the requirement under paragraph (e) of this section to install, operate, and maintain BART may apply to the Administrator for an exemption from that requirement. An application for an exemption will be subject to the requirements of § 51.303(a)(2)-(h).

(f) *Requirements for comprehensive periodic revisions of implementation plans for regional haze.* Each State identified in § 51.300(b)(3) must revise and submit its regional haze implementation plan revision to EPA by July 31, 2018 and every ten years thereafter. In each plan revision, the State must evaluate and reassess all of the elements required in paragraph (d) of this section, taking into account improvements in monitoring data collection and analysis techniques, control technologies, and other relevant factors. In evaluating and reassessing these elements, the State must address the following:

(1) Current visibility conditions for the most impaired and least impaired days, and actual progress made towards natural conditions during the previous implementation period. The period for calculating current visibility

conditions is the most recent five year period preceding the required date of the implementation plan submittal for which data are available. Current visibility conditions must be calculated based on the annual average level of visibility impairment for the most and least impaired days for each of these five years. Current visibility conditions are the average of these annual values.

(2) The effectiveness of the long-term strategy for achieving reasonable progress goals over the prior implementation period(s); and

(3) Affirmation of, or revision to, the reasonable progress goal in accordance with the procedures set forth in paragraph (d)(1) of this section. If the State established a reasonable progress goal for the prior period which provided a slower rate of progress than that needed to attain natural conditions by the year 2064, the State must evaluate and determine the reasonableness, based on the factors in paragraph (d)(1)(i)(A) of this section, of additional measures that could be adopted to achieve the degree of visibility improvement projected by the analysis contained in the first implementation plan described in paragraph (d)(1)(i)(B) of this section.

(g) *Requirements for periodic reports describing progress towards the reasonable progress goals.* Each State identified in §51.300(b)(3) must submit a report to the Administrator every 5 years evaluating progress towards the reasonable progress goal for each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the State which may be affected by emissions from within the State. The first progress report is due 5 years from submittal of the initial implementation plan addressing paragraphs (d) and (e) of this section. The progress reports must be in the form of implementation plan revisions that comply with the procedural requirements of §51.102 and §51.103. Periodic progress reports must contain at a minimum the following elements:

(1) A description of the status of implementation of all measures included in the implementation plan for achieving reasonable progress goals for mandatory Class I Federal areas both within and outside the State.

(2) A summary of the emissions reductions achieved throughout the State through implementation of the measures described in paragraph (g)(1) of this section.

(3) For each mandatory Class I Federal area within the State, the State must assess the following visibility conditions and changes, with values for most impaired and least impaired days expressed in terms of 5-year averages of these annual values.

(i) The current visibility conditions for the most impaired and least impaired days;

(ii) The difference between current visibility conditions for the most impaired and least impaired days and baseline visibility conditions;

(iii) The change in visibility impairment for the most impaired and least impaired days over the past 5 years;

(4) An analysis tracking the change over the past 5 years in emissions of pollutants contributing to visibility impairment from all sources and activities within the State. Emissions changes should be identified by type of source or activity. The analysis must be based on the most recent updated emissions inventory, with estimates projected forward as necessary and appropriate, to account for emissions changes during the applicable 5-year period.

(5) An assessment of any significant changes in anthropogenic emissions within or outside the State that have occurred over the past 5 years that have limited or impeded progress in reducing pollutant emissions and improving visibility.

(6) An assessment of whether the current implementation plan elements and strategies are sufficient to enable the State, or other States with mandatory Federal Class I areas affected by emissions from the State, to meet all established reasonable progress goals.

(7) A review of the State's visibility monitoring strategy and any modifications to the strategy as necessary.

(h) *Determination of the adequacy of existing implementation plan.* At the same time the State is required to submit any 5-year progress report to EPA in accordance with paragraph (g) of this section, the State must also take one of the following actions based upon

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the information presented in the progress report:

(1) If the State determines that the existing implementation plan requires no further substantive revision at this time in order to achieve established goals for visibility improvement and emissions reductions, the State must provide to the Administrator a negative declaration that further revision of the existing implementation plan is not needed at this time.

(2) If the State determines that the implementation plan is or may be inadequate to ensure reasonable progress due to emissions from sources in another State(s) which participated in a regional planning process, the State must provide notification to the Administrator and to the other State(s) which participated in the regional planning process with the States. The State must also collaborate with the other State(s) through the regional planning process for the purpose of developing additional strategies to address the plan's deficiencies.

(3) Where the State determines that the implementation plan is or may be inadequate to ensure reasonable progress due to emissions from sources in another country, the State shall provide notification, along with available information, to the Administrator.

(4) Where the State determines that the implementation plan is or may be inadequate to ensure reasonable progress due to emissions from sources within the State, the State shall revise its implementation plan to address the plan's deficiencies within one year.

(i) *What are the requirements for State and Federal Land Manager coordination?*

(1) By November 29, 1999, the State must identify in writing to the Federal Land Managers the title of the official to which the Federal Land Manager of any mandatory Class I Federal area can submit any recommendations on the implementation of this subpart including, but not limited to:

(i) Identification of impairment of visibility in any mandatory Class I Federal area(s); and

(ii) Identification of elements for inclusion in the visibility monitoring strategy required by § 51.305 and this section.

(2) The State must provide the Federal Land Manager with an opportunity for consultation, in person and at least 60 days prior to holding any public hearing on an implementation plan (or plan revision) for regional haze required by this subpart. This consultation must include the opportunity for the affected Federal Land Managers to discuss their:

(i) Assessment of impairment of visibility in any mandatory Class I Federal area; and

(ii) Recommendations on the development of the reasonable progress goal and on the development and implementation of strategies to address visibility impairment.

(3) In developing any implementation plan (or plan revision), the State must include a description of how it addressed any comments provided by the Federal Land Managers.

(4) The plan (or plan revision) must provide procedures for continuing consultation between the State and Federal Land Manager on the implementation of the visibility protection program required by this subpart, including development and review of implementation plan revisions and 5-year progress reports, and on the implementation of other programs having the potential to contribute to impairment of visibility in mandatory Class I Federal areas.

[64 FR 35765, July 1, 1999, as amended at 70 FR 39156, July 6, 2005]

§ 51.309 Requirements related to the Grand Canyon Visibility Transport Commission.

(a) *What is the purpose of this section?*

This section establishes the requirements for the first regional haze implementation plan to address regional haze visibility impairment in the 16 Class I areas covered by the Grand Canyon Visibility Transport Commission Report. For the years 2003 to 2018, certain States (defined in paragraph (b) of this section as Transport Region States) may choose to implement the Commission's recommendations within the framework of the national regional haze program and applicable requirements of the Act by complying with the provisions of this section, as supplemented by an approvable Annex to

Appendix B

December 6, 2007 Public Hearing Notice and Certification of Publication of the Notice

PUBLISHER'S AFFIDAVIT

STATE OF MISSOURI,
)ss.
 COUNTY OF COLE)

Mike Vivion

..... being duly sworn, according
 to law, says he/she is Treasurer of the News Tribune Company,
 Publisher of the News Tribune

a newspaper printed and published in the County of Cole, and State
 aforesaid; that said newspaper has been published continuously for more
 than three years; and that the notice hereto attached was published in said
 paper in compliance with the provisions of Section 493.050

R.S. of Mo. for 2000 as amended for 1 time as follows:
3rd November 07
 1st insertion, No. day of, 20.....
 2nd insertion, No. day of, 20.....
 3rd insertion, No. day of, 20.....
 4th insertion, No. day of, 20.....
 5th insertion, No. day of, 20.....
 Fee: \$143.40

Subscribed and sworn to before me this 5th
November 07
 day of 20

Barbara K. Lethbrum
 Notary Public - State of Missouri
 My term as Notary Public expires March 13, 2009
 Cole County
 CURRENT SRM #03629328

MISSOURI AIR CONSERVATION
 COMMISSION
 WILL HOLD PUBLIC HEARING
 JEFFERSON CITY, MO - The Mis-
 souri Air Conservation Commission
 will hold a public hearing on Missouri
 State Implementation Plan-Missouri
 Regional Haze Plan on Thursday, De-
 cember 6, 2007. The Public Hearing
 will begin at 9 a.m. at the Harry S.
 Truman Building, Room 400, 301 W.
 High Street, Jefferson City, MO. The
 commission will hear testimony relat-
 ed to the following item(s).
 * Missouri State Implementation
 Plan-Missouri Regional Haze Plan
 On July 1, 1999, the U.S. Environ-
 mental Protection Agency (EPA)
 adopted the federal Regional Haze
 Rule with federal visibility require-
 ments. Missouri has two federal
 Class I areas within its borders. The
 Missouri Regional Haze Plan was
 developed to meet the requirements
 of EPA's Regional Haze Rule and in-
 cludes a description of the consulta-
 tion process used to develop the
 plan, reasonable progress goals for
 achieving natural visibility conditions,
 calculations of baseline and natural
 visibility conditions, long-term
 strategy for regional haze, monitoring
 strategy and other implementation
 plan requirements.
 Documents for the above item(s) will
 be available for review at the Mis-
 souri Department of Natural Re-
 sources, Air Pollution Control Pro-
 gram, 1659 Elm Street, Jefferson
 City, (573) 751-4817 and in the Public
 Notices section of the program web
 site [www.dnr.mo.gov/env/apcp/in-
 dex.html](http://www.dnr.mo.gov/env/apcp/index.html).
 Persons with disabilities requiring
 special services or accommodations
 to attend the meeting can make
 arrangements by calling the depart-
 ment directly at (573) 526-4679, the
 department's toll free number at
 (800) 334-6946, or by writing two
 weeks in advance of the meeting to:
 Missouri Department of Natural Re-
 sources, Air Conservation Commis-
 sion Secretary, P.O. Box 176, Jeffe-
 rson City, MO 65102. Hearing
 impaired persons may contact the
 program through Relay Missouri,
 (800) 735-2966.
 The commission holds public
 hearings under the provisions of
 chapter 643, RSMo. Citizens wishing
 to speak at the public hearing should
 notify the secretary to the Missouri
 Air Conservation Commission, Mis-
 souri Department of Natural Re-
 sources, Air Pollution Control Pro-
 gram, P.O. Box 176, Jefferson City,
 Missouri 65102-0176, or telephone
 (573) 526-4679. The department re-
 quests persons intending to give
 verbal presentations also provide a
 written copy of their testimony to the
 commission secretary at the time of
 the public hearing. The department
 also will accept written or email com-
 ments for the record until 5 p.m. on
 December 13, 2007; please send two
 copies of written comments to Chief,
 Operations Section, Air Pollution
 Control Program, P.O. Box 176,
 Jefferson City, MO 65102-0176.
 Email comments regarding rule ac-
 tions shall be sent to
apcprulespn@dnr.mo.gov and email
 comments regarding plan actions
 shall be sent to
apcpsppn@dnr.mo.gov. All written
 and email comments and public
 hearing testimony will be equally
 considered.
 Public hearing items may be adopted
 by the Missouri Air Conservation
 Commission as provided for under
 authority of 643.050, RSMo. For
 more information or a complete
 meeting agenda, including items
 being presented for adoption,
 contact the Missouri Department of
 Natural Resources' Air Pollution
 Control Program at (573) 751-4817.
 N.T. Nov. 3, 2007

Appendix C

Comments and Responses on Plan

**COMMENTS AND RESPONSES ON
PROPOSED MISSOURI STATE IMPLEMENTATION PLAN–
STATE OF MISSOURI REGIONAL HAZE PLAN**

AND

RECOMMENDATION FOR ADOPTION

On December 6, 2007, the Missouri Air Conservation Commission held a public hearing concerning the proposed revision to the Missouri State Implementation Plan for inclusion of a State of Missouri Regional Haze Plan. The following is a summary of comments received and the Missouri Department of Natural Resources' corresponding responses. Any changes to the proposed regional haze plan are identified in the responses to the comments.

The Missouri Department of Natural Resources' Air Pollution Control Program recommends the commission adopt the plan as revised. If the commission adopts this plan action, it will be the department's intention to submit this new plan to the U.S. Environmental Protection Agency to replace the current visibility plan in the Missouri State Implementation Plan.

SUMMARY OF COMMENTS: The department's Air Pollution Control Program received comments from five (5) sources: the Mississippi Lime Company, a private citizen, the U.S. Department of Interior Fish and Wildlife Service (FWS), the U.S. Environmental Protection Agency (EPA), and the U.S. Department of Agriculture Forest Service (FS).

COMMENT #1: The Mississippi Lime Company commented that one of their two units that were removed from Best Available Retrofit Technology (BART) consideration due to a permit condition requiring shutdown, has become a BART-eligible emission unit as a result of their request to remove that condition from the permit for that unit. As a BART-eligible unit, it is subject to BART screening evaluation. This evaluation has been conducted and the results show that this unit along with the company's other two current BART-eligible emission units remain below the 0.5 deciview impact level and, therefore, remain exempt from BART.

RESPONSE AND EXPLANATION OF CHANGE: The language in the BART chapter of the plan has been revised to reflect that Mississippi Lime Company has three BART-eligible units that do not need to install BART controls to meet the federal Regional Haze Rule requirements.

COMMENT #2: A private citizen commented that the regional haze plan does not appear to monitor or address nighttime visibility concerns, particularly with regard to man-made light emissions. The comment requests justification for how the plan will achieve the natural visibility controls of the Clean Air Act without a plan to reduce nighttime light emissions.

RESPONSE: The EPA's Regional Haze Rule does not regulate light emissions directly. The goals of the rule, as shown in the regional haze plan, can be met without requiring reductions in nighttime emissions. However, the improved visibility levels that will result from regional haze plans will help improve nighttime visibility. No changes were made to the plan as a result of this comment.

COMMENT #3: The FWS commented that that it was their understanding that the comments submitted by the U.S. Department of Interior in October 2007 on the draft Missouri Regional

Haze Plan were not considered to be “on the public record” because they were provided prior to the official public comment period. Therefore, the FWS resubmitted their comments into the official rulemaking process by attachment to a December 2007 letter.

RESPONSE AND EXPLANATION OF CHANGE: The official “rulemaking” process does not typically include early draft rule text comments in the formal comments and responses on proposed rule actions because these early comments are taken into account in the proposed rulemaking that is presented at public hearing. However, extra effort was made to share early draft plan comments as a result of this comment. The public hearing presentation made before the Missouri Air Conservation Commission and the public included discussion on the regional haze plan consultation process. This discussion mentioned that the consultation process included the Federal Land Managers and that they provided comments on the draft plan. The summary of comments and responses includes comments received during the consultation process and on the proposed plan that was presented at public hearing.

COMMENT #4: The FWS and the FS commented that their review of the draft Missouri Regional Haze Plan indicated a need to more completely address the land management agency priorities which include the following areas of interest: baseline, natural condition and uniform rate, emission inventories, area of influence, reasonable progress goals and long-term strategy, fire, regional consistency, verification and contingencies and coordination and consultation.

RESPONSE AND EXPLANATION OF CHANGE: This comment on the early draft plan resulted in additional language being added to the proposed plan that was presented at public hearing to more completely address the land management agency priorities and additional revisions have been made to the plan as a result of comments received during the public comment period.

COMMENT #5: The FWS commented that the draft Missouri Regional Haze Plan relied on a pattern of referencing technical documents that did not include explanations of the State’s reasoning on deriving conclusions. They also requested that the discussion in the draft plan be expanded regarding how important federal rule elements were approached and evaluated.

RESPONSE AND EXPLANATION OF CHANGE: This comment on the early draft plan was considered and additional explanatory language was added to the proposed plan that was presented at public hearing to describe the State’s approach, evaluation and reasoning on deriving conclusions. In addition, revisions have been made to the plan as a result of comments received during the public comment period.

COMMENT #6: The FWS commented that discussions of specific plan elements are re-visited in several sections, often with contradictory or incorrect information. More robust explanations of specific topic areas are often included in non-related chapters.

RESPONSE AND EXPLANATION OF CHANGE: Early in the development of the regional haze plan, it was decided to structure the Missouri Regional Haze Plan as closely as possible to the plan template provided by the Central Regional Air Planning Association (CENRAP). The reasoning was that if all states were to structure their plans to align to this template, then the review of plans would be much easier for the Federal Land Managers. Since it is not our intent to have contradictory or incorrect information in the plan, the plan was reviewed for accuracy at the same time that more robust explanations were added with the reasoning for the conclusions being drawn in the plan. At the same time, information in each chapter of the document was

reviewed to determine if it was in an appropriate section of the document while keeping with the template structure.

COMMENT #7: The FWS requested that the baseline and natural condition values being used as a basis for the draft Missouri Regional Haze Plan be reviewed for consistency with the latest available information. They also asked that the plan state if the estimates were generated using the old or the new Interagency Monitoring of PROtected Visual Environments (IMPROVE) equation.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, IMPROVE information in the early draft plan was reviewed for consistency with the latest available information. Additional language was also added to the proposed plan that was presented at public hearing explaining that the plan is based on the new IMPROVE equation.

COMMENT #8: The FWS commented that the department should consider providing additional information in the draft Missouri Regional Haze Plan. They suggest a summary of the IMPROVE equations and the calculations necessary to evaluate baseline conditions and providing a specific description in an appendix. Also, it was noted that the plan references an “ftp” website that is not publicly available.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, Appendix G has been added to the plan to provide a more detailed explanation of the revised IMPROVE equation. Therefore, the website reference was no longer necessary and has been removed from the plan text.

COMMENT #9: The FWS commented that the department should identify whether the “Uniform Rate of Reasonable Progress Glide Paths” in section 8.4 of the draft Missouri Regional Haze Plan were produced using actual model output or the results of applying a relative reduction factor. Also, the concept of “Method 1” is mentioned in the Uniform Rate of Progress graphs and should be explained in the plan.

RESPONSE AND EXPLANATION OF CHANGE: Section 8.4 of the plan indicates that the uniform rate of reasonable progress glide paths were produced by drawing a line from the baseline observed visibility conditions for the 20 percent worst days to natural visibility conditions in 2064. Neither model output nor relative reduction factors were used in the construction of the glide paths. Therefore, no changes were made to the plan regarding how uniform rate of reasonable progress glide paths were produced. However, language was added to section 8.4 clarifying the procedures used in the CENRAP 2018 modeled visibility projections, which are labeled “Method 1” in the uniform rate of progress graphs in the plan. The “Method 1” procedures conform to the EPA’s default method of calculating future-year visibility conditions.

COMMENT #10: The FWS commented that statements in section 6.4, referencing ambient ammonia monitoring in CENRAP regions and indicating that high concentrations of ammonia are occurring with a considerable regularity, are in conflict with section 9.2 that stated ammonia was being discarded from consideration due to the inventory being “very uncertain” regarding anthropogenic contribution. The FWS requests the plan discuss whether the observations apply in Missouri, whether the department has investigated winter dates when 20% worst visibility occurs and how ammonia emissions were considered in evaluating the reasonable progress goal. The FWS is concerned that the department should re-evaluate ammonia emission effects on

visibility at the Mingo Wilderness Area, considering the high nature of measurements that have potentially occurred.

RESPONSE: The CENRAP/Midwest Regional Planning Organization (RPO) special ammonia sampling was conducted in the upper Midwest, including central Missouri, where agricultural sources of ammonia are numerous. The sampling was conducted primarily to aid in understanding the association of free ammonia with regional haze pollutants, but was not able to directly relate ammonia sources to haze. While that seems to be a given, the BART discussion in section 9.2 points out that not only is the overall ammonia inventory, including agricultural, very limited nationally, but that the BART eligible sources were not large ammonia emitters, so that pollutant was not considered in the BART evaluation. Ammonia was part of the modeling analysis for the 20% worst days, and is discussed in the CENRAP Modeling Technical Support Document used as a basis for reasonable progress growth evaluation. Currently, the EPA is conducting a study with large concentrated animal feeding operations to determine improved emission factors. Contingent on the outcome of the mid-course review discussed in section 13, an evaluation of ammonia controls may be included in the four (five) factor analysis, which could include these new emission factors. No changes were made to the plan as a result of this comment.

COMMENT #11: The FWS commented that the department should consider combining the draft Missouri Regional Haze Plan discussions on emission inventories into one chapter.

RESPONSE: Early in the development of the regional haze plan, it was decided to structure the Missouri Regional Haze Plan as closely as possible to the plan template provided by the CENRAP. The reasoning was that if all states were to structure their plans to align to this template, then the review of plans would be much easier for the Federal Land Managers. Therefore, no changes were made to the plan as a result of this comment.

COMMENT #12: The FWS and EPA commented that the draft Missouri Regional Haze Plan needs to commit to periodically updating the future emission inventory projections used for regional haze decision making.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, section 7.3 was added to the plan with language that commits to periodic reviews and updates of base year inventories and future-year emissions projections.

COMMENT #13: The FWS commented that the BART chapter discussion of the draft Missouri Regional Haze Plan regarding the Doe Run-Glover facility should explicitly address the potential scenario that Doe Run-Glover might resume operation under their valid air quality permit.

RESPONSE AND EXPLANATION OF CHANGE: This comment on the early draft plan resulted in additional language being added to section 9.2 of the proposed plan that was presented at public hearing to further address address Doe Run-Glover possibly resuming operation under their valid air quality permit. To supplement this comment and on-going operating permit issues, the department has sent a letter to Doe Run-Glover requesting clarification of Doe Run's plans. This letter clarified the intent of the department to require a BART analysis for the facility if operations of the large units commenced. The letter is included in Appendix J. At this time, the department does not believe the source will commence operation and does not intend to pursue a BART evaluation unless contrary information is presented.

COMMENT #14: The FWS requested that the reasons for excluding volatile organic compounds (VOCs) and ammonia from BART determinations should be expanded in the draft Missouri Regional Haze Plan.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, language was added to the proposed plan that was presented at public hearing expanding on the reasoning for excluding VOCs and ammonia from BART determinations.

COMMENT #15: The FWS requested that the text in the draft Missouri Regional Haze Plan specify whether the CALPUFF/CALPOST screening analyses followed the CENRAP screening modeling protocol, and if not, the reasons for not following that protocol.

RESPONSE: The CALPUFF/CALPOST screening analyses conducted do not explicitly follow the CENRAP protocol for this evaluation because the department evaluated CALPOST Method2 and Method6. This level of review is beyond the CENRAP protocol and ensures that sources were screened using a more conservative approach than specified in the CENRAP protocol. No changes were made to the plan as a result of this comment.

COMMENT #16: The FWS commented that the draft Missouri Regional Haze Plan approach that uses the 98th percentile test on modeling results to determine BART eligible source impacts is not appropriate according to CENRAP screening modeling protocol. It is unclear whether the department refined the meteorology processing done in the modeling in order to move to refined modeling which would then allow for use of the 98th percentile approach. Also, when using the 98th percentile approach, the eighth-highest daily visibility impact predicted in a modeling year should be used rather than the seventh-highest value.

RESPONSE AND EXPLANATION OF CHANGE: The first portion of this comment on the early draft plan resulted in language being included in the proposed plan that was presented at public hearing to include information specific to the use of “refined” meteorology and the 98th percentile visibility change. As a result of the second part of the comment regarding the use of the 8th highest daily visibility impact, supplemental changes have been made to the plan to reflect that the 98th percentile values represent the 8th highest visibility impact instead of the 7th highest visibility impact.

COMMENT #17: The FWS requested that the BART chapter of the draft Missouri Regional Haze Plan include information regarding Noranda Aluminum and the University of Missouri-Columbia, including any modeling protocols for the refined analyses, modeling results and BART engineering determinations as they become available.

RESPONSE AND EXPLANATION OF CHANGE: The information requested by this comment was included in the proposed plan that was presented at public hearing.

COMMENT #18: The FWS commented that there are inconsistent statements in the draft Missouri Regional Haze Plan about the BART decisions pertaining to electric generating units (EGUs) that are also subject to the Clean Air Interstate Rule (CAIR). They requested that additional information be provided explaining how CAIR EGU sources were evaluated for primary particulate matter and primary sulfate emissions.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the BART chapter in the proposed plan that was presented at public hearing was amended to remove

inconsistencies and additional information was included explaining the evaluation of EGUs including the determination of primary particulate matter emissions.

COMMENT #19: The FWS recommended that the tables in Appendices G and I of the draft Missouri Regional Haze Plan be reformatted for ease in reading this information.

RESPONSE AND EXPLANATION OF CHANGE: The tables in these appendices have been reformatted in the proposed plan that was presented at public hearing.

COMMENT #20: The FWS commented that the consultation plan in Appendix F of the draft Missouri Regional Haze Plan contains several Area of Influence (AOI) maps for the affected Class I areas in and near Missouri. These maps should be integral to the discussions in the plan. The information in section 11.5 of the draft Missouri Regional Haze Plan references tables in the emissions inventory section that only presents a summary of 2002 and 2018 emissions inventory for just Missouri sources and only in aggregate by source category. Also, section 11.5 does not provide any of the CENRAP graphics for Class I areas of concern. The plan needs to discuss attribution of haze-causing pollution and the results of consultations with neighboring states regarding achieving Reasonable Progress Goals for the Missouri Class I areas.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment and FS comments on the early draft plan, discussion language in the proposed plan that was presented at public hearing was expanded to include AOI maps, applicable CENRAP graphics, additional emissions allocation information and attribution of haze-causing pollution that includes results of consultations with neighboring states.

COMMENT #21: The FWS and the FS commented that Chapter 10 of the draft Missouri Regional Haze Plan establishes that 2018 reasonable progress goals are equal to the 2018 year value of the uniform rate of progress graph. This is not consistent with the federal Regional Haze Rule. However, the 2018 visibility projections presented in section 8.4 were based on emission growth and on-the-books controls that will be implemented between 2002 and 2018. Based on this information, the federal Regional Haze Rule requires Missouri to adopt the results of the visibility projection as its 2018 Reasonable Progress Goal.

RESPONSE AND EXPLANATION OF CHANGE: As a result of FWS and FS comments on the early draft plan, discussion language in the proposed plan that was presented at public hearing was revised to show that the 2018 visibility projections based on emissions growth and on-the-books controls are the reasonable progress goals.

COMMENT #22: The FWS and the FS commented that Chapter 10 of the draft Missouri Regional Haze Plan does not address the reasonable progress goals for the best 20% visibility days as required by the federal Regional Haze Rule.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the discussions in the proposed plan that was presented at public hearing were expanded to address the best 20% visibility days.

COMMENT #23: The FWS commented that the discussion in Chapter 10 of the draft Missouri Regional Haze Plan does not include the required four-factor analysis for establishing Reasonable Progress Goals. The plan only applies the four-factor analysis to the CAIR-affected and BART-affected sources within Missouri. The plan does not include the required four-factor

analysis for non-EGUs in establishing the Reasonable Progress Goals. This is a misinterpretation of the EPA guidance that states that the four-factor analysis doesn't need to "reassess the reasonable progress factors for sources subject to BART for which you have already completed a BART analysis."

RESPONSE: The glide slope approach required in the 1999 federal Regional Haze Rule was applied in establishing the reasonable progress goals for each Class I area. The draft regional haze guidance published in 2006 radically departs from the federal Regional Haze Rule. The guidance declares that the States should conduct reviews (4-factor analysis) for all stationary sources to identify any potential controls before determining the reasonable progress goal. The reasonable progress goal selection process in the guidance is fundamentally inconsistent with the glide slope analytical approach contained in the federal Regional Haze Rule. It also contradicts the traditional approach used in state implementation plans for nonattainment areas.

If modeling failed to achieve the Uniform Rate of Progress goals for Missouri Class I areas, then conducting a 4-factor analysis would be appropriate for non-EGUs. However, visibility projections based on CENRAP modeling indicate that Missouri will be able to meet the Uniform Rate of Progress goals for both Mingo and Hercules Glades Class I areas in 2018. Missouri has not selected a strategy to achieve greater reductions than necessary to meet the Uniform Rate of Progress goals because the state must follow state statute 643.055 that does not allow standards stricter than those required under the provisions of the federal Clean Air Act. No changes were made to the plan as a result of this comment.

COMMENT #24: The FWS commented that section 11.4 of the draft Missouri Regional Haze Plan inaccurately refers to the regional haze process as an attainment demonstration. However, it provides the framework for each State to establish those Reasonable Progress Goals based upon the statutory four-factor analysis.

RESPONSE: The glide slope approach required in the 1999 federal Regional Haze Rule was applied in establishing the reasonable progress goals for each Class I area as described in the response to COMMENT #23. Therefore, no changes were made to the plan as a result of this comment.

COMMENT #25: The FWS, the FS and EPA requested that the discussion in section 11.6.4 of the draft Missouri Regional Haze Plan be expanded to elaborate on how the Prevention of Significant Deterioration (PSD) and New Source Review (NSR) permitting programs will be utilized as part of the long term strategy for meeting Reasonable Progress Goals. EPA stated that, along with explaining to what extent the State relied on the PSD and NSR programs in developing the long-term strategy, the State should provide more explanation in the plan on how these programs satisfy the State's obligation to consider construction activity, and source retirement and replacement schedules.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the discussions in the proposed plan that was presented at public hearing were expanded to elaborate on how the PSD and NSR permitting programs will be used in the long term strategy. The department still plans to coordinate the visibility review of major new source review permits with the Federal Land Manager for applicable Class I areas. The requirements of the Clean Air Act with respect to this type of coordination will still be met. In addition, the continued application of nonattainment permitting and the PSD program in Missouri will help ensure that facilities are in

compliance with all standards including the National Ambient Air Quality and PSD increment standards in Missouri. The existing permitting program to ensure compliance with the applicable standards remains sufficient to meet the obligation to consider construction activities in Missouri along with the continued coordination with EPA and the land managers.

COMMENT #26: The FWS commented that the draft Missouri Regional Haze Plan should describe how natural and non-natural smoke emissions from wild and prescribed fires currently affect the Class I areas and how these effects may change during the planning period.

RESPONSE AND EXPLANATION OF CHANGE: Fire, while not considered to be a main source of visibility impairment in any Class I area, is one source of regional haze. Minimizing the adverse effects of smoke results from a concerted effort to utilize prescribed fires in a beneficial manner consistent with proven management strategies. These strategies include understanding and using meteorological conditions when scheduling burning to avoid sending smoke into a sensitive area, controlling the rate of emissions to promote dilution and dispersion, and minimizing smoke output per unit area through emissions reduction techniques. Currently, fires do not significantly contribute to visibility impairment in Class I Federal areas located in Missouri and the affects of wild and prescribed fires are not expected to change over the planning period of this plan. However, language was added to the plan to describe how adverse affects of smoke from wild and prescribed fires are minimized.

COMMENT #27: The FWS commented that the draft Missouri Regional Haze Plan and the Missouri Smoke Management Plan should identify Mingo as a smoke sensitive area and prescribed burners should be required to apply the appropriate smoke management techniques to minimize smoke impacts.

RESPONSE: Both the Mingo National Wildlife Area and the Hercules Glades Wilderness Area are identified as federal Class I Areas and, as such, are considered smoke sensitive. The implementation of the Missouri Smoke Management Plan encourages prescribed burners to use best smoke management practices to minimize smoke impacts. No changes were made to the plan as a result of this comment.

COMMENT #28: The FWS commented that the draft Missouri Regional Haze Plan should refer to the Missouri Smoke Management Plan in a way that does not require plan updates each time the Smoke Management Plan is updated. They also request that Missouri indicate whether Missouri intends to certify the Smoke Management Plan as provided for by the 1998 EPA Interim Air Quality Policy on Wildland and Prescribed Fire.

RESPONSE AND EXPLANATION OF CHANGE: The Missouri Regional Haze Plan that was presented at public hearing refers to the Missouri Smoke Management Plan in a way that does not require plan updates each time the Smoke Management Plan is updated. A copy of the Missouri Smoke Management Plan is provided as an appendix to the plan for reference. Missouri does intend for the Missouri Smoke Management Plan to be certified as provided for by the 1998 EPA Interim Air Quality Policy on Wildland and Prescribed Fire. A letter certifying that the smoke management plan meets the basic requirements is being provided to EPA.

COMMENT #29: The FWS commented that neither section 11.6.5 of the draft Missouri Regional Haze Plan nor the Missouri Smoke Management Plan addresses ongoing development, review and updating of the plan as a result of coordination and consultation during the

development of future progress reports and plan revisions. Also, they do not provide for federal land manager agency involvement.

RESPONSE AND EXPLANATION OF CHANGE: This comment on the early draft plan resulted in additional language being added in Section 11.4.5 of the proposed plan that was presented at public hearing to clarify that the department does not intend to submit the smoke management plan for inclusion in the Missouri SIP. The additional plan language states that a copy of the Missouri Smoke Management Plan is included in the appendix of the regional haze plan for reference and a letter certifying that the smoke management plan meets the basic requirements will be provided to EPA. This allows changes to be made to the smoke management plan without undergoing a SIP revision. The language in Section 11.2 of the proposed plan that was presented at public hearing addresses the coordination and consultation during the development of future progress reports and plan revisions.

COMMENT #30: The FWS commented that there are three RPOs that also cover the Mingo Wilderness Area. Missouri should consider including language in the draft Missouri Regional Haze Plan to highlight the importance of the ongoing verification and contingency provisions in view of the varying and different results of the three RPOs.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, a new section 8.4.2 “Other RPO’s visibility projections” has been added to the proposed plan that was presented at public hearing. The section compares the visibility projections from CENRAP, Visibility Improvement State and Tribal Association of the Southeast (VISTAS), and Midwest Regional Planning Organization (MRPO) for Mingo and Hercules Glades Class I areas. Missouri used CENRAP modeling results in developing the RH plan based on a better quality-assured inventory.

COMMENT #31: The FWS commented that section 6.3 of the draft Missouri Regional Haze Plan discusses the ongoing and future monitoring strategy for measuring visibility parameters and progress at the Class I areas within Missouri. Given the uncertain future of any individual monitoring site, the plan should address the representativeness of both primary and alternative data sites, and also provide a more specific plan for ensuring that monitoring is continued if national funding is not available.

RESPONSE AND EXPLANATION OF CHANGE: This comment on the early draft plan resulted in additional language being added to the proposed plan that was presented at public hearing to address future monitoring if national funding is not available.

COMMENT #32: The FWS encourages Missouri to not only consider the need for monitoring data to measure progress, but also 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 plan.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, section 7.3 was added to the plan with language that commits to periodic reviews and updates of base year inventories and future-year emissions projections.

COMMENT #33: The FWS commented that Chapter 13 of the draft Missouri Regional Haze Plan discusses options for action following the five-year review. This discussion should include

the anticipated criteria that will be used to evaluate the progress at the five-year review and to select the course of action that will be taken based upon that review.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, criteria for evaluating the progress of the RPGs at the five-year review has been added to the plan. A process flow chart with the review criteria and course of action has also been added to the plan. If the monitoring and emission data does not support the RPG projections for Missouri Class I areas, a 5-factor analysis will be conducted at the five-year review.

COMMENT #34: The FWS commented that the draft Missouri Regional Haze Plan refers to appendices of the plan for documentation of the consultation process but the plan lacks discussion of Missouri's decisions based upon the results of those meetings.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, section 4.1 of the plan was expanded to include more discussion of the basis for the decisions that resulted from the consultation process.

COMMENT #35: The FWS commented that the draft Missouri Regional Haze Plan should outline how Missouri would accomplish future ongoing consultation activities if the CENRAP organization no longer existed. Also, the future consultation activities mentioned in the plan should consistently mention the Federal Land Manager agencies as a partner in that consultation.

RESPONSE AND EXPLANATION OF CHANGE: This comment on the early draft plan resulted in additional language being added to the proposed plan that was presented at public hearing stating that ongoing consultation activities would be led by Missouri if the CENRAP organization no longer existed. In addition, language has been added to sections 2.6 and 10.3 of the plan to clarify that federal land managers are included in the consultation process.

COMMENT #36: The FS commented that Chapters 1 and 4 of the Missouri Regional Haze Plan should include the Boundary Waters Canoe Class I area in Minnesota since earlier RPO discussions identified Missouri as effecting visibility in that area. Also, the discussion should clarify what states contributed to achieving reasonable progress in Missouri and an evaluation of the additional Missouri controls that was requested by Minnesota.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment on the early draft plan, additional discussion language regarding Boundary Waters was added to section 4 of the proposed plan that was presented at public hearing to clarify the lack of contribution by Missouri on that Class I Area.

COMMENT #37: The FS commented that Chapter 7 of the Missouri Regional Haze Plan should include a discussion of the Area of Influence for the emissions that cause or contribute to visibility impairment in the affected Class I areas and identify those affected areas. The State is required by 40 CFR 51.308(d)(4)(ii) 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 federal Class I Areas both within and outside the state. It should also be mentioned in the plan if Missouri intends to update the inventory periodically.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment and FWS comments on the early draft plan, discussion language in the proposed plan that was presented at public hearing was expanded to include AOI maps, applicable CENRAP graphics, additional

emissions allocation information and attribution of haze-causing pollution that includes results of consultations with neighboring states. In addition, section 7.3 was added to the plan with language that commits to periodic reviews and updates of base year inventories and future-year emissions projections.

COMMENT #38: The FS commented that Chapter 8 of the Missouri Regional Haze Plan should include a discussion of what differences actually occurred in the various RPO inventories used for visibility projections. Then one could assess which modeling scenario best represents impacts at the affected Class I areas.

RESPONSE AND EXPLANATION OF CHANGE: This comment on the early draft plan resulted in additional language being added to section 8.4.2 of the proposed plan that was presented at public hearing to more completely address the land management agency priorities.

COMMENT #39: The FS commented that Chapter 10 of the Missouri Regional Haze Plan states that the 2018 visibility goals for Mingo and Hercules Glades have been largely achieved through EGU emissions 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. EPA also commented that Missouri must include the required four-factor analysis, the results of the analysis and the effect(s) on visibility improvements at Class I areas in the plan.

RESPONSE: Missouri has included the four-factor analyses from CENRAP, and the effects on visibility improvement at Missouri Class I areas in the plan. Additional CENRAP control sensitivity run controls will be considered if the five-year review does not indicate sufficient progress is being met with the proposed controls. No changes were made to the plan as a result of this comment.

COMMENT #40: The FS requested clarification of the status of the Central Class I area consultation since they thought that the consultation had ended.

RESPONSE: The discussion in section 11.2 is referring to subsequent coordination and consultation that will occur in the development of future progress reports and plan revisions, as well as during the implementation of programs having the potential to contribute to visibility impairment in the mandatory Class I areas. No text changes have been made to the plan as a result of this comment.

COMMENT #41: The FS commented that the draft Missouri Regional Haze Plan listed those Class I areas which Missouri would reasonably be anticipated to impact. Such a list in Chapter 11 of the plan would be useful and they recommend including the appropriate list in the plan.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment on the early draft plan, discussion language in section 4.1 of the proposed plan that was presented at public hearing was expanded to include a list of impacted Class I Areas.

COMMENT #42: The FS commented that Chapter 11 of the Missouri Regional Haze Plan states that Missouri will include BART controls proposed by the other impacting states in its long term strategy. Since not all of these BART determinations are completed, they want to know what mechanism will be used to adjust the Reasonable Progress Goal based on the other states' final BART determinations.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, section 11.4.1.2 has been revised to reflect that the five-year review will be the mechanism used to adjust the Reasonable Progress Goal based on the other states' final BART determinations.

COMMENT #43: The FS commented that section 11.4.2 of the Missouri Regional Haze Plan refers to the 2018 Reasonable Progress Goals for Mingo and Hercules Glades Class I areas but should refer to the Uniform Rate of Progress goal for 2018. While the CAIR controls are very cost effective, Missouri has made no showing that additional cost effective controls are not available. If Missouri chooses not to consider the CENRAP developed "C1" control strategy, then Missouri should explain its rationale for not selecting a strategy which would achieve greater reductions than its present strategy.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the language in section 11.4.2 of the plan has been revised to reflect the Uniform Rate of Progress (URP) goal for 2018. Visibility projections based on CENRAP modeling indicate that Missouri will be able to meet the Uniform Rate of Progress goals for both Mingo and Hercules Glades Class I areas during the first planning period ending in 2018. All applicable measures reflected in the modeling and weight of evidence analysis have been incorporated in the state's long-term strategy. Missouri has not selected a strategy to achieve greater reductions than necessary to meet the Uniform Rate of Progress because the state must follow state statute 643.055 that does not allow standards stricter than those required under the provisions of the federal Clean Air Act. Additional cost effective controls including SO₂/NO_x Reasonably Available Control Technology (RACT) in the St Louis PM_{2.5} plan and Illinois Multi-Pollutant Strategy will provide more air quality benefit in visibility improvement. These additional controls were not modeled by CENRAP.

COMMENT #44: The FS commented that section 11.4.5 of the Missouri Regional Haze Plan should include discussion stating that Missouri has not documented smoke contributing significantly to visibility impairment in Class I areas for consistency with the Missouri Smoke Management Plan. Since it appears the current prescribed fire smoke management techniques implemented in Missouri are adequate to protect visibility in the Class I areas and the Missouri Smoke Management Plan should provide additional protection, these points should be noted in the plan discussion.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, additional language was added to section 11.4.5 of the plan stating that Missouri is not aware of any smoke contributing significantly to visibility impairment in Class I areas and that the Missouri Smoke Management Plan should provide additional protection for these areas.

COMMENT #45: The FS suggested that it may be prudent to omit specific elements of the Interim Air Quality Policy from section 11.4.5 of the Missouri Regional Haze Plan to help maintain flexibility for modification since the policy is due to be revised by July 2008.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the specific elements of the Interim Air Quality Policy has been removed from section 11.4.5 of the plan.

COMMENT #46: The FS commented that Section 13 of the Missouri Regional Haze Plan should contain greater detail relating to judging adequacy of the existing plan. For example, explain how Missouri will determine if the plan is adequate, if the inadequacy is due to

emissions from Missouri or other states/areas and what plan revisions will be made if the inadequacy is due to Missouri sources.

RESPONSE AND EXPLANATION OF CHANGE: Section 13 of the plan already states that the findings of the five-year progress report will determine what plan revisions will be made if it is determined to be inadequate due to Missouri sources. Any resulting plan revisions could include a revision to goals, contingency measures, the monitoring strategy, and any other parts of the plan as deemed necessary. In response to COMMENT #50, criteria has been added to the plan for evaluating the progress to meet the Reasonable Progress Goals in Missouri Class I areas.

COMMENT #47: The FS requested that Missouri consider how the Missouri Regional Haze 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 emissions inventories or other technical bases of the state implementation plan. 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 plan.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, section 7.3 was added to the plan with language that commits to periodic reviews and updates of base year inventories and future-year emissions projections.

COMMENT #48: The EPA provided a statement at public hearing supporting Missouri’s efforts in developing the Missouri Regional Haze Plan. Appreciation was expressed for the opportunity to provide early comment on the draft regional haze plan. They believe that this cooperation resulted in a more efficient and effective plan review process for both the department and the EPA.

RESPONSE: EPA’s support for these efforts is appreciated.

COMMENT #49: The EPA commented that the Missouri Regional Haze Plan must include a discussion of what action was taken or not taken in addressing each Federal Land Manager comment including the rationale for the decisions. The FWS and the FS also anticipate these responses to their questions in accordance with the 40 CFR 51.308(i)(3) requirement.

RESPONSE AND EXPLANATION OF CHANGE: A copy of the comments, along with responses to those comments, have been included in Appendix C of the Missouri Regional Haze Plan.

COMMENT #50: The EPA commented that Section 13 of the Missouri Regional Haze Plan must include a definitive statement that the modeling and monitoring information will be used and the consultation process described in the plan will be followed in carrying out the scheduled incremental administrative and technical actions required in the plan.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, a more definitive statement has been added to Section 13 of the plan.

COMMENT #51: The EPA commented that the Missouri Regional Haze Plan does not contain any information concerning how the plan will be managed throughout its administrative and/or

regulatory life. The plan should identify what Missouri agency and/or official will be responsible for conducting the numerous time critical actions required. The plan should also identify the form(s) or format(s) in which the plan will be maintained. A digital (i.e. computer) format with specific intervals to revisit the format for periodic technology updates is suggested for the long-term plan retention and accessibility. It is also suggested that one or more paper copies of the plan be retained by the State for easy retrieval by the public and others.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, sections 12.0 and 13.0 have been revised to include the suggested information pertaining to plan management. Criteria has also been developed for evaluating the progress to meet the Reasonable Progress Goals in Missouri Class I areas.

COMMENT #52: The EPA commented that Chapter 12 of the Missouri Regional Haze Plan provides no specific information as to actions that will be taken by the State during the important first five-year Reasonable Progress reporting period. The plan should include a discussion of the planned activities during this period.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, sections 12.0 and 13.0 have been revised to include specific information regarding planned activities during the five-year reasonable progress reporting period. Criteria has also been developed for evaluating the progress to meet the Reasonable Progress Goals in Missouri Class I areas.

COMMENT #53: The EPA commented that interstate regional haze consultation discussion in the Missouri Regional Haze Plan is unclear on whether or not there is an agreement between Missouri and the states of Minnesota and Oklahoma over the significance of Missouri's emissions at Class I areas in those states. The status of the consultations between the states, including a discussion of resolved issues, should be provided in the plan.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment on the early draft plan, discussion language in section 4.2 of the proposed plan that was presented at public hearing was revised to expand discussion on the disagreement between Minnesota, Oklahoma and Missouri regarding Missouri source influences on the Minnesota and Oklahoma Class I Areas.

COMMENT #54: The EPA commented that the discussion in section 11.4 of the Missouri Regional Haze Plan needs to be clarified as to which programs listed are relied upon to demonstrate that the plan will meet its Reasonable Progress Goal.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the plan has been revised to specify that "on the book controls" under section 11.4.1. are the only programs used in modeling demonstration in meeting the RPG requirements.

COMMENT #55: The EPA commented that the inventory development discussion in the Missouri Regional Haze Plan should clarify that the department's Air Pollution Control Program and CENRAP, with contractor support, prepared the onroad inventory. Also, Missouri should indicate what entity processed the data used in developing the final onroad inventory. Finally, the inventory development discussion should state whether the 2018 emissions inventory was based on 12 months of data inputs or a different time frame.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, language was added clarifying which entity prepared the onroad mobile emissions inventory and stating that the 2018 emissions inventory was based on 12 months of data inputs.

COMMENT #56: The EPA commented that Table 9.1 in Chapter 9 of the Missouri Regional Haze Plan should be revised to include the dates for facilities, the emissions that make the sources BART-eligible and an evaluation of emission type and amount. These dates should be included since BART-eligible determinations involve consideration of both the “start-up” and “in operation” dates. Missouri should clarify how it determined which sources should undergo further BART modeling analysis. For example, the State should state whether it used the Q/d (emissions divided by distance) approach in determining which sources needed to be modeled further or some other approach. EPA commented that Appendix H of the plan is both difficult to read and to extrapolate emission source information. Therefore, both Table 9.1 and Appendix H should be revised to provide emission information and construction dates rather than the “X” that was inserted in certain tabular fields without an explanation.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, Appendix I (original Appendix H) of the plan has been revised to include an explanation of the finding of BART-eligibility, specifically detailing the elimination methodology including date or size of emission source as the rationale. Upon consideration of this comment, the department discovered eight (8) additional sources that were mis-characterized as having no BART eligible sources. The plan has been revised to include these sources in Table 9.1 and the rationale for inclusion or exclusion is detailed in Appendix I (original Appendix H). In response to the portion of the comment regarding Q/d, the department did not use a Q/d approach for eliminating sources but, instead, performed a screening evaluation of all BART-eligible sources in Missouri. The results of the screening analyses were utilized to determine the need for refined CALPUFF modeling.

COMMENT #57: The EPA commented that the information in Chapter 9 of the Missouri Regional Haze Plan needs to clarify the following issues. The plan is unclear as to the regulatory status of Portland Cement Plants in Missouri. The plan suggests that these plants are subject to seasonal limits under the NO_x SIP Call but doesn't address SO₂ throughout the year, NO_x during non-ozon months or the applicability to plants in the western part of the state. Since Portland Cement Plants are not affected by CAIR, it doesn't seem appropriate to use the NO_x SIP Call to permanently exclude Portland Cement Plants from review under BART.

RESPONSE AND EXPLANATION OF CHANGE: It was not suggested that Portland Cement Plants are not eligible for BART review due to inclusion in the NO_x SIP Call. Chapter 9 of the draft regional haze plan had only identified River Cement as a BART-eligible source due to its installation and operation date and size. This plant was issued a construction permit for a new kiln to replace the existing kilns at this location. Therefore, since the units do not exist that were BART eligible, then the subsequent review is moot. However, review of the other cement kilns in Missouri found that two others had units that were BART-eligible: Continental Cement in Hannibal and Holcim – Clarksville. Continental Cement has been awarded a construction permit for elimination of the existing kiln and the same logic applies to this plant as was applied to River Cement. The Holcim – Clarksville facility is BART-eligible and has screening and refined impacts over the visibility threshold. Currently, the Holcim facility has been asked to evaluate additional controls for SO₂ and NO_x including cost of control. This information will be provided

to the department for a decision regarding potential control of the existing kiln at Holcim. Chapter 9 of the plan has been revised to include this discussion.

COMMENT #58: The EPA commented that the information in Appendix H of the Missouri Regional Haze Plan is either incomplete or inconsistent with the State's finding that the River Cement Plant is exempt from further BART review. The plan needs to be revised to address the data omissions and inconsistencies.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the plan has been revised to address the BART data omissions and inconsistencies.

Appendix D

MACC Adoption Certification

Pursuant to 643.055 RSMo, the Missouri Air Conservation Commission has determined that this action is needed to have a U.S. Environmental Protection Agency approved State Implementation Plan.

The Missouri Regional Haze Plan is hereby adopted by the Missouri Air Conservation Commission this 7th day of February, 2008.

Mark C. Y, Chairman

Sam J. Post, Vice-Chairman

R. H. Ri, Member

M. R. Joseph, Member

[Signature], Member

Jack C. Baker, Member

Kevin G. Basenbach, Member