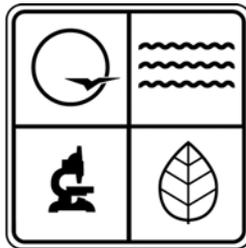




**State of Missouri Plan for Implementation,
Maintenance and Enforcement of National Ambient Air
Quality Standards**

**Missouri Air Conservation Commission
Adopted: August 27, 2009**



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1.0 Executive Summary

This state of Missouri Plan for Implementation, Maintenance and Enforcement of National Ambient Air Quality Standard (NAAQS) has been written to fulfill the requirements of Section 110 of the Federal Clean Air Act Amendments (CAAA) of 1990. Section 110 of the CAAA requires that each state submit to the Administrator of the U.S. Environmental Protection Agency (EPA) a plan for the implementation, maintenance and enforcement of NAAQS in every air quality region within the state.

The NAAQS for the revised 2006 24-hour PM₁₀ and 24-hour PM_{2.5} primary and secondary standards was proposed by EPA on January 17, 2006 and finalized on September 21, 2006, (October 17, 2006 Federal register notice). The revised 2006 PM standards required that revised state plans be submitted within three (3) years after the rule's promulgated date (September 21, 2009) and after promulgation of NAAQS for any pollutant.

The content of this plan has been developed to demonstrate that the state of Missouri has the ability to implement the primary and secondary standards for the 2006 PM₁₀, and PM_{2.5} Standards. This plan meets the requirements for preparation, adoption and submittal of implementation plans codified in the Congressional Federal Record (CFR) at 40 CFR part 51, Appendix V, "Criteria for Determining the Completeness of Plan Submissions".

This section 110 plan is for the entire state of Missouri. Separate plans will be prepared, if necessary to address any nonattainment areas designated under the revised 2006 PM_{2.5} standards.

The state of Missouri acknowledges its responsibilities related to section 110(a) of the CAAA and reaffirms that the state has full authority under section 110(a) to implement the revised NAAQS.

Under the current State Implementation Plan (SIP) and Missouri Air Conservation Law (Appendix A), the state has the necessary infrastructure, resources and general authority to address the revised 2006 PM₁₀ and PM_{2.5} standards.

2.0 Time Line History

2.1 Particulate Matter

EPA promulgated a PM total suspended particulate (TSP) NAAQS in 1971 which set the primary standard (the level where human health is affected) at $260 \mu\text{g}/\text{m}^3$ for a 24-hour average and $75 \mu\text{g}/\text{m}^3$ for an annual geometric mean. EPA set the secondary standard (the level where the public's welfare, other than health, such as property damage is affected) at $150 \mu\text{g}/\text{m}^3$ for a 24-hour average. The Clean Air Act requires EPA to review the standards every five years as new data becomes available, and revise any standard as justified.

The Kansas City and Out-state SIP (1972) was written to fulfill the original national ambient air quality standards.

On July 1, 1987, after extensive review and public comment covering a nine year period, EPA published a final decision in the Federal Register concerning a revision to the particulate matter standard, which became effective July 31, 1987. The revisions:

- replaced the pollutant indicator for the standard from TSP to PM_{10} ;
- set the primary, health related 24-hour standard to $150 \mu\text{g}/\text{m}^3$;
- set the primary annual standard to $50 \mu\text{g}/\text{m}^3$; and
- set the secondary standards equal to the primary standards.

The MO Air Pollution Control Plan -- PM_{10} 1988 was written to fulfill the 1987 revised particulate matter standard.

On July 18, 1997, EPA revised the particulate matter standards to include a new national primary and secondary ambient air quality standard for $\text{PM}_{2.5}$ (See Federal Register, July 18, 1997, Volume 62, Page 38711, Notices as amended at Federal Register July 30, 2004 Vol. 69, Page 45595). The revisions:

- set the primary and secondary standards for particulate matter 2.5 to 15.0 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) annual arithmetic mean concentration; and
- set the primary and secondary 24-hour standards to $65 \mu\text{g}/\text{m}^3$ 24-hour average concentration.

The State of Missouri Plan for Implementation, Maintenance and Enforcement of National Ambient Air Quality Standards (2007) was written to fulfill the 1997 particulate matter standards.

On January 17, 2006, EPA revised the NAAQS for the revised 2006 24-hour PM₁₀ and 24-hour PM_{2.5} primary and secondary standards. (See Federal Register, January 17, 2006 Volume 71, Page 2620/ Proposed Rules). These standards were finalized on September 21, 2006 (See Federal Register, October 17, 2006 Volume 71, Page 61144/ Rules and Regulations). The revisions became effective on December 18, 2006 and:

- lowered the level of the 24-hour PM_{2.5} standard from the 65 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to 35 $\mu\text{g}/\text{m}^3$;
- retained the level of the annual PM_{2.5} standard at 15 $\mu\text{g}/\text{m}^3$;
- retained the 24-hour standard for PM₁₀ of 150 $\mu\text{g}/\text{m}^3$, with no more than one (1) expected exceedance in three-year average;
- eliminated the annual standard for PM₁₀; and
- included ambient air monitoring with:
 - new designations for multi-pollutant ozone and PM_{2.5} precursor sites, called NCore;
 - rules for monitoring between PM₁₀ and PM_{2.5};
 - new rules for determining equivalent methods for PM_{2.5} monitoring;
 - revised requirements and guidance for network design and siting; and
 - elimination of minimum criteria pollutant monitor numbers for carbon monoxide, sulfur dioxide, and nitrogen dioxide.

As a result of the 2006 revised particulate matter standards, this plan is being revised.

2.1.1 Historical Particulate Matter Monitoring Network.

The original monitoring network was set up at the following locations:

1. St. Louis, MO
 - Eight monitors in the Missouri portion of the St. Louis metropolitan area
2. Kansas City, MO
 - Five monitors in the Missouri portion of the Kansas City metropolitan area
3. Springfield, MO
 - Three monitors
4. Other monitors in the state
 - St. Joseph, MO
 - Hannibal, MO
 - Mexico, MO;
 - Columbia, MO
 - Herculaneum, MO; and
 - Mark Twain State Park in Monroe County.

2.1.2 Historical Analysis of Air Quality Data

Data for 1985, 1986 and 1987 showed no violations in the three-year-period of the PM₁₀ NAAQS.

The data did show exceedances of the standards as follows:

- The monitor at St. Joseph had an annual mean value of 51.7 µg/m³ (exceeding 50) in 1985.
- The monitor in Mexico had a 24-hr exceedance of 164 µg/m³ (exceeding 150) on Aug. 1, 1987

The above exceedances were not violations of the standards for the following reasons:

- The annual exceedance in St. Joseph in 1985 occurred before a change in monitoring equipment operation for PM₁₀ was initiated by EPA in mid-1986. Following this change, lower values for PM₁₀ (about 20 percent less) were being taken than before the change at the same monitoring sites, and with that difference applied at the St. Joseph monitor for the 1985 exceedance, the adjusted value was below the annual standard.
- The 24-hour exceedance in Mexico was the only one at that monitor during that calendar year. The standard allows one 24-hour exceedance per year at any one monitored site without being in violation of the standard.

Prior to the above two exceedances, out-state Missouri had always been in attainment for the PM standards except for the exceedances addressed by the Columbia Particulate Matter SIP (1980), Mexico Particulate Matter SIP (1979) and St. Joseph Particulate Matter SIP (1980).

There have also been exceedances by point sources at times that have been addressed by consent and settlement agreements and through permit modifications. The charcoal industry has been regulated by rule 10 CSR 10-6.330 "Restriction of Emissions from Batch-Type Charcoal Kilns" because of excess PM and opacity violations in the past. A limestone processing facility in Carthage, Missouri has been brought into compliance using settlement agreements, and a metal salvage/recycling facility in St. Louis, MO by a revised source registration permit.

Missouri sites in the St. Louis area are in attainment of the 24-hour PM_{2.5} standard finalized in 2006. No site in Illinois would be over the standard if the 41.9 µg/m³ value which was monitored at the Granite City site on July 5th 2008 is excluded. Illinois EPA was required by the leaseholder to

relocate the VFW site. They have moved it to the Gateway Medical Center at 2100 Madison Ave.

All Missouri sites meet the annual PM_{2.5} standard of 15.0 µg/m³. However, the St. Louis area remains in violation for the 2006-8 reporting period due to one (1) Illinois site, Granite City which had a 15.6 µg/m³ monitor reading.

The Hall Street PM₁₀ site in St. Louis recorded no exceedance in 2008 but did record three (3) exceedances in 2006 and one (1) in 2007, giving it four (4) exceedances in two (2) years. This was addressed by the submittal of a modified Basic Operating Permit for the point source in violation. This modified basic permit was adopted on October 25, 2007 by the Missouri Air Conservation Commission (MACC) and then submitted to EPA for inclusion into Missouri's SIP in December, 2007. The facility's exceedances have been addressed by the aforementioned permit revisions. However, since four (4) exceedances in three (3) years constitute a violation, Hall St. is still in violation of the standard, as of 2008.

2.2 Long Range Transport

During the mid-1990's, the EPA, states, and local agencies began to evaluate the impacts of long range transport of emissions on nonattainment areas for NAAQS. This evaluation led to EPA's promulgation of a SIP call to reduce nitrogen oxide emissions (NO_x SIP Call). Missouri was not included in the first phase of the NO_x SIP Call. However, Missouri developed a NO_x transport regulation, 10 CSR 10-6.350 "Emission Limitations and Emissions Trading of Oxides of Nitrogen". This regulation was developed to fulfill the state's requirements under the EPA's 1-hour ozone attainment date extension policy as it applies to the St. Louis ozone nonattainment area. This regulation achieved NO_x emission reductions throughout the state of Missouri by placing an emission rate limit on electric generating units and established a rate based trading program, similar to EPA's Acid Rain Program. This regulation will also reduce precursor PM_{2.5} emissions.

EPA promulgated Phase II of the NO_x SIP Call in 2004. The SIP call required Missouri to reduce NO_x emissions from electric generating units, cement kilns, industrial boilers, and stationary internal combustion engines. Missouri developed regulations to implement the requirements of EPA's NO_x SIP call. These regulations became effective in October of 2005 and were approved by the EPA on Aug. 15, 2006.

In March of 2005, EPA promulgated the Clean Air Interstate Rule (CAIR). This rule was designed to reduce NO_x and sulfur dioxide emissions from affected states to levels that would not significantly impact

any neighboring states' ability to attain or maintain the NAAQS for ozone and fine particulate. This rule does apply to Missouri. Therefore, Missouri promulgated three (3) rules; 10 CSR 10-6-362 Clean Air Interstate Rule Annual NO_x Trading Program; 10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NO_x Trading Program; and 10 CSR 10-6.366 Clean Air Interstate Rule SO_x Trading Program. All became effective on May 30, 2007 and were approved by EPA on December 14, 2007.

On July 11, 2008, the D.C. Circuit Court vacated the CAIR and its associated FIP and remanded both to EPA. The Court granted several petitions raised by the plaintiffs and took issue with EPA's rulemaking on several fronts. The Court stated that "no amount of tinkering with the rule or revising of the explanations will transform CAIR, as written, into an acceptable rule." The Court notes that the current regional NO_x SIP Call trading program will continue because EPA planned to end this program after the 2008 ozone season only because it would be replaced by the CAIR NO_x ozone season trading program in 2009. The Court added that the continued implementation of the NO_x SIP Call trading "should mitigate any disruption" for NO_x as a result of the vacatur of CAIR. EPA must either accept the vacatur of CAIR or seek to have the D.C. Circuit Court's decision reversed through any of several judicial processes.

On December 23, 2008, the D.C. Circuit Court of Appeals granted EPA's petition to remand CAIR to the Agency to be "fixed" rather than be vacated, which was the Court's original (July 11, 2008) decision. This means that CAIR will remain effect, but EPA is obligated to replace the rule consistent with the Court's July 2008 findings. The Court did not impose a schedule on EPA, but was clear in that the Court does not intend its action to be an indefinite stay of the effectiveness of the July 2008 decision.

Missouri amended rules 10 CSR 10-6.350 Emission Limitations and Emissions Trading of Oxides of Nitrogen and 10 CSR 10-6.360 Control of NO_x Emissions From Electric Generating Units and Non-Electric Generating Boilers by clarifying in the sunset clause that these rules will not apply if CAIR is in effect because of the CAIR vacatur and remand back to EPA.

Missouri promulgated two (2) St. Louis 24-hour PM_{2.5} nonattainment area SO₂ reasonable available control technology (RACT) rule actions to address PM_{2.5} nonattainment. 10 CSR 10-5.570 Control of Sulfur Emissions From Stationary Boilers which is a new rule that controls small coal and heavy oil-fired boilers. 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds is a rule amendment which control's sulfur emissions at a large lead smelter. Controlling these sources control precursor emissions that may form PM_{2.5} sized sulfur containing particles.

These rules were adopted by the MACC on April 30, 2009 and are scheduled to be in effect September 30, 2009.

The above rule actions will help address the transport of PM_{2.5} precursors (NO_x and SO₂) over time.

Sources do not have significant direct PM_{2.5} contributions on downwind nonattainment areas. However, many state rules do address and restrict direct PM_{2.5} emissions. These are rules such as the vehicle inspection and maintenance rule 10 CSR 10-5.381, the anti-idling rules 10 CSR 10-2.385 and 10 CSR 10-5.385, open burning rule 10 CSR 10-6.045, and the fugitive dust rule 10 CSR 10-6.170.

3.0 State Area Designations

3.1 State Area Designations

All State Area Designations are listed in Appendix F.

3.2 State Monitoring Design Values

State Monitoring Design Values are listed in Appendix G.

4.0 Administrative Requirements

4.1 Section 110: Requirements of the Clean Air Act Amendments of 1990

This section of the plan provides an explanation of how each applicable Clean Air Act (CAA) requirement is attained.

Implementation Plans Requirements of the Clean Air Act Amendments of 1990.

Section 110. Implementation Plans

(a)(1) Each state shall, after reasonable notice and public hearings, adopt and submit to the Administrator, within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national primary ambient air quality standard (or any revision thereof) under section 109 for any air pollutant, a plan which provides for implementation, maintenance, and enforcement of such primary standard in each air quality control region (or portion thereof) within such state. In addition, such state shall adopt and submit to the Administrator (either as a part of a plan submitted under the preceding sentence or separately)

within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national ambient air quality secondary standard (or revision thereof), a plan which provides for implementation, maintenance, and enforcement of such secondary standard in each air quality control region (or portion thereof) within such state. Unless a separate public hearing is provided, each state shall consider its plan implementing such secondary standard at the hearing required by the first sentence of this paragraph.

The 1972 Kansas City and out state plan was written to fulfill the original national ambient air quality standards. Since the original plan, there have been three (3) revisions to the plan as a result of NAAQS changes. This plan updates NAAQS for the revised 2006 24-hour PM₁₀ and 24-hour PM_{2.5} primary and secondary standards.

(2) Each implementation plan submitted by a state under this Act shall be adopted by the state after reasonable notice and public hearing. Each such plan shall—

(A) include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this Act;

State rule 10 CSR 10-6.010 “Ambient Air Quality Standards” lists the NAAQS and other facility specific State rules, permits and consent agreements fulfill the requirements of 110(a)(2)(A). Section 643.030 RSMo authorizes the MACC to control air pollution, which is defined in section 643.020 RSMo to include air contaminants, which cause or contribute to injury to public health or welfare. This authority enables the Department to implement the 2006 24-hour PM_{2.5} standard.

(2)(B) provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to –
(i) monitor, compile, and analyze data on ambient air quality, and
(ii) upon request, make such data available to the Administrator;

Section 643.050 RSMo provides the authority necessary for the State to fulfill the requirements of 110(a)(2)(B).

(2)(C) include a program to provide for the enforcement of the measures described in subparagraph (A), and regulation of the modification and construction of any stationary source within the areas covered by the plan

as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D;

Section 643.075 RSMo and Section 643.078 RSMo provides the authority necessary for the Department's Air Pollution Control Program's Permits and Compliance/Enforcement Sections to fulfill the requirements of 110(a)(2)(C).

(2)(D) contain adequate provisions –

- (i) prohibiting, consistent with the provisions of this title, any source or other type of emissions activity within the state from emitting any air pollutant in amounts which will –*
 - (I) contribute significantly to nonattainment in, or interfere with maintenance by, any other state with respect to any such national primary or secondary ambient air quality standard, or*
 - (II) interfere with measures required to be included in the applicable implementation plan for any other state under part C to prevent significant deterioration of air quality or to protect visibility,*
 - (III) insuring compliance with the applicable requirements of sections 126 and 115 (relating to interstate and international pollution abatement);*

To fulfill the requirements of section 110 (a)(2)(D), several actions have been implemented to address the transport of direct PM_{2.5} and also PM_{2.5} precursors (NO_x and SO₂) over time. (Also, see Subsection 2.2 Long Range Transport for additional transport information).

Visibility Protection

EPA has made no determination that emissions from any state interfere with 1980 visibility plan measures required to be included in a plan to address reasonably attributable visibility impairment. EPA is not aware of any certification of existing reasonably attributable impairment of visibility by a Federal Land Manager that has not already been resolved. Based on this information, no source in Missouri emits pollutants that interfere with measures included in visibility plans under 1980 regulations.

Missouri's nonattainment/maintenance plan for the PM_{2.5} NAAQS is under development. It is expected that this plan will benefit visibility protected areas in Missouri and other neighboring states with the inclusion of NO_x and SO₂ controls. Also, Missouri worked with the Central States Regional Air Partnership (CENRAP) regional planning organization to develop a regional haze plan. The Missouri regional haze plan was submitted to EPA on March 2008 for conditional approval dependent on the Best Available Retrofit Technology (BART) controls evaluation. This

evaluation was complete in the spring of 2009 and the plan has been revised to implement enforceable BART requirements. The on-going regional haze plan development process is intended to address visibility impairing pollutants from sources in other states as well as Missouri that contribute to poor visibility in Missouri Class I areas.

Prevention of Significant Deterioration

All major sources located in attainment areas in the State of Missouri are currently subject to Prevention of Significant Deterioration (PSD) permitting under state rule 10 CSR 10-6.060 Construction Permits Required section (8). Major sources located in nonattainment areas are currently regulated under a Nonattainment New Source Review (NNSR) permitting program under state rule 10 CSR 10-6.060 Construction Permits Required section (7). Missouri believes that the current rule 10 CSR 10-6.060 Construction Permits Required rule meets the requirements of the Phase II ozone implementation rule as St. Louis is classified as a moderate ozone nonattainment area. Missouri will follow EPA's most current policy on the implementation of all PSD and NNSR regulations as they relate to the implementation of the NAAQS. Missouri will also adopt EPA's revised regulations implementing the revisions to the NAAQS as expeditiously as possible. This will include the adoption of permitting requirements into the state permitting rules as soon as possible. This regulation will also help reduce PM_{2.5} emissions.

Prevention of Significant Contribution

Several rules have been implemented and are in development to prevent Missouri emissions from significantly contributing to nonattainment in other states or interfering with maintenance in other states with respect to any such national primary or secondary ambient air quality standard.

Four (4) rules have been implemented to establish a NO_x emissions trading program for the state of Missouri; establish an emission budget for large electric generating units and non-electric generating boilers; establish NO_x control equipment and NO_x emission levels for cement kilns; and establish emission levels for large stationary internal combustion engines. These regulations will also help reduce PM_{2.5} emissions.

These four (4) state rules are 10 CSR 10-6.350 Emission Limitations and Emissions Trading of Oxides of Nitrogen; 10 CSR 10-6.360 Control of NO_x Emissions From Electric Generating Units and Non-Electric Generating Boilers; 10 CSR 10-6.380 Control of NO_x Emissions From Portland Cement Kilns; and 10 CSR 10-6.390 Control of NO_x Emissions From Large Stationary Internal Combustion Engines. These regulations will also help reduce PM_{2.5} emissions.

Four (4) additional rules have been promulgated to address a Clean Air Interstate Rule Annual NO_x Trading Program. These four (4) state rules are 10 CSR 10-6.362 Clean Air Interstate Rule Annual NO_x Trading Program; 10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NO_x Trading Program; and 10 CSR 10-6.366 Clean Air Interstate Rule SO₂ Trading Program. These regulations will also help reduce PM_{2.5} emissions.

Missouri amended rules 10 CSR 10-3.350 Emission Limitations and Emissions Trading of Oxides of Nitrogen and 10 CSR 10-3.360 Control of NO_x Emissions From Electric Generating Units and Non-Electric Generating Boilers by clarifying in the sunset clause that these rules will not apply if CAIR is in effect because of the CAIR vacatur and remand back to EPA.

Missouri promulgated two (2) St. Louis 1997 annual PM_{2.5} nonattainment area SO₂ reasonable available control technology (RACT) rules to address PM_{2.5} nonattainment. 10 CSR 10-5.570 Control of Sulfur Emissions From Stationary Boilers and 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds are scheduled to be in effect September 30, 2009. (See Appendix I for rule MACC Adoption Certifications).

(2)(E) provide (i) necessary assurances that the state (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the state or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under state (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of Federal or state law from carrying out such implementation plan or portion thereof), (ii) requirements that the state comply with the requirements respecting state boards under section 128, and (iii) necessary assurances that, where the state has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the state has responsibility for ensuring adequate implementation of such plan provision;

The Missouri Air Conservation Law (643.079, RSMo) requires the Missouri Air Conservation Commission to set an air pollution emission fee at least every three (3) years to fund the reasonable cost of administering this law. Section 643, RSMo also provides the authority necessary to carry out the SIP requirements. The Department's Air Pollution Control Program also has signed state and local agreements with St. Louis City, St. Louis County, Kansas City and Springfield/and with the surrounding states which fulfill the requirements of 110(a)(2)(E).

(2)(F) require, as may be prescribed by the Administrator –

- (i) *the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps, by owners or operators of stationary sources to monitor emissions from such sources,*
- (ii) *periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and*
- (iii) *correlation of such reports by the State agency with any emission limitations or standards established pursuant to this Act, which reports shall be available at reasonable times for public inspection;*

Section 643.050(3)(a) RSMo provides the State authority to require persons engaged in operations which result in air pollution to monitor or test emissions and to file reports containing information relating to rate, period of emission and composition of effluent. State rules also require monitoring of emissions and periodic reports on emissions that can be correlated to standards and therefore, fulfill the requirements of 110(a)(2)(F). This information is available for view at the Missouri Department of Natural Resources, Air Pollution Control Program, 1659 East Elm Street, PO Box 176, Jefferson City, MO 65102-0176.

(2)(G) provide for authority comparable to that in section 303 and adequate contingency plans to implement such authority;

Section 643.090 RSMo authorizes the commission or the director to declare an emergency and may, with the written approval of the governor, prohibit, restrict or condition all sources of air contaminants contributing to the emergency condition during such periods of time necessary to alleviate or lessen the effects of the emergency condition.

State rule 10 CSR 10-6.130 “Controlling Emissions During Episodes of High Air Pollution Potential” and contingency elements in the St. Louis nonattainment and Kansas City maintenance SIPs would also help reduce PM_{2.5} emissions and, therefore, fulfill the requirements of 110(a)(2)(G).

(2)(H) provide for revision of such plan –

- (i) *from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, and*
- (ii) *except as provided in paragraph (3)(C), whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to attain the national ambient air quality standard which it implements or to otherwise comply with any additional requirements established under this Act;*

Section 643.055 RSMo grants the Department full authority to implement the revised National Ambient Air Quality Standards and to promulgate and revise Missouri's SIP. This authority fulfills the requirements of 110(a)(2)(H).

(2)(I) in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D (relating to nonattainment areas);

Section 643.055 RSMo grants the Department full authority to implement the revised National Ambient Air Quality Standards and to promulgate and revise Missouri's SIP. This authority fulfills the requirements of 110(a)(2)(I).

(2)(J) meet the applicable requirements of section 121 (relating to consultation), section 127 (relating to public notification), and part C (relating to prevention of significant deterioration of air quality and visibility protection);

Missouri statutes grant the MACC and the director direct authority to implement federal standards through state rules and procedures. The Department's Air Pollution Control Program rule, permit and plan action processes include consultation through public notification and participation. The prevention of significant deterioration of air quality and visibility protection is included in state rules and plans. These actions fulfill the requirements of 110(a)(2)(J).

(2)(K) provide for –

- (i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard, and*
- (ii) the submission, upon request, of data related to such air quality modeling to the Administrator;*

Section 643.050 RSMo provides the authority necessary for the Air Quality Analysis Section of the Department's Air Pollution Control Program to fulfill the requirements of 110(a)(2)(K).

(2)(L) require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this Act, a fee sufficient to cover –

- (i) the reasonable costs of reviewing and acting upon any application for such a permit, and*

- (II) *if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action),*

until such fee requirement is superseded with respect to such sources by the Administrator's approval of a fee program under title V;

Section 643.075 RSMo provides authority for the Department's Air Pollution Control Program's Permits Section to collect permit fees. Rules 10 CSR 10-6.060 Construction Permits Required, 10 CSR 10-6.061 Construction Permit Exemptions, 10 CSR 10-6.062 Construction Permits by Rule and 10 CSR 10-6.065 Operating Permits also fulfill the requirements of 110(a)(2)(L).

(2)(M) provide for consultation and participation by local political subdivisions affected by the plan.

Section 643.140 RSMo provides the authority to meet the requirements of 110(a)(2)(M). The Department's Air Pollution Control Program has signed State and Local Agreements with St. Louis City, St. Louis County, Kansas City and Springfield/Greene County. In addition, the program participates in the Mid-America Regional Council and East-West Gateway Coordinating Council of Governments community meetings. Through these interactions and public participation on rule and plan actions, the requirements of 110(a)(2)(M) are fulfilled.

4.2 Legal Authority

The MACC is granted legal authority to develop and implement regulations regarding air pollution under section 643.050 RSMo.

Under the current SIP and Missouri Air Conservation Law, the state has the necessary infrastructure, resources and general authority to address the revised 2006 24-hour PM₁₀ and 24-hour PM_{2.5} primary and secondary standards.

The specific powers and duties of the state are outlined in section 643.050, RSMo "Powers and Duties of the Commission", 643.055, RSMo "Commission May Adopt Rules for Compliance with Federal Law", and 643.060, RSMo "Powers and Duties of Director".

The MACC is the air pollution control agency of the State and has the authority, pursuant to chapter 536, RSMo "Administrative Procedure and Review", to promulgate rules and regulations to establish standards and

guidelines to ensure that the state of Missouri is in compliance with the provisions of the federal Clean Air Act.

These statutes grant the MACC and the director authority to implement any federal standards through state rules and procedures. A copy of the Missouri Air Conservation Law (Appendix A) that pertains to the powers and duties of the commission and the director are in sections 643.010-643.070, RSMo. Missouri's complete air law is in sections 643.010-643.620, RSMo.

4.3 Public Hearing Notice and Certification

A public hearing notice was published in the Jefferson City News Tribune newspaper at least 30 days prior to the public hearing which occurred on July 29, 2009. The public hearing notice along with certification of publication of the public notice for this plan action is in Appendix C.

4.4 Comments, Responses and Explanations of Change

The Department's Air Pollution Control Program's responses to comments received during the open public comment period on these plan actions are in Appendix D. The comment period was open for seven (7) days after the public hearings held on July 29, 2009. The Department's Air Pollution Control Program is required to respond to all comments.

4.5 Missouri Air Conservation Commission Adoption Certification

The MACC adoption certifications to demonstrate approval by the commission of the SIP amendments are in Appendix E.

5.0 Quality Assurance Program

The Department's Air Pollution Control Program quality assures all data in accordance with 40 CFR 58.10 and the Department's Air Pollution Control Program standard operating procedures for operating the ambient monitoring networks and validating the data. The Department's Air Pollution Control Program records the data in the U.S. Environmental Protection Agency's (EPA's) Aerometric Information Retrieval System (AIRS) database, which is available to the public.

5.1 Air Quality Analysis for 2008 Air Quality (3/3/2009)

The following information is for the ambient air monitors operated by all reporting organizations including state, local, and industry which is

updated to the EPA AIRS database for 2008. The total number of exceedances of the NAAQS to date in 2008 are summarized below:

- **PM_{2.5}**

All Missouri monitoring sites now meet both the 2006 24-hour and 2006 annual standards. The St. Louis area remains in violation for 2006 to 2008 due to one Illinois site, Granite City (15.6 µg/m³) that is over the annual standard.

- **Data Completeness**

Data completeness for Missouri is typically excellent, averaging percentages in the high 90s. Data completeness for the first three calendar quarters was 95%, 97%, and 97%. All PM_{2.5} compliance monitoring met completeness requirements for compliance monitors.

- **Missouri Air Quality Monitor Data for Years 2005, 2006, 2007 and 2008.**

See Appendix G.

5.2 Particulate Matter 2.5 Monitoring Network

See Appendix H

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Appendix A

Missouri Air Conservation Law

The Missouri Air Conservation Law is available for viewing at;

<http://www.moga.mo.gov/statutes/chapters/chap643.htm>

Appendix B

Effective State Rules

The Missouri air pollution control rules are available for viewing at;

<http://www.sos.mo.gov/adrules/csr/current/10csr/10csr.asp#10-10>

Appendix C

July, 2009 Public Hearing Notice and Certification of Publication of the Notice

MISSOURI AIR CONSERVATION
COMMISSION
WILL HOLD PUBLIC HEARING
JEFFERSON CITY, MO

The Missouri Air Conservation Commission will hold a public hearing on Control of Sulfur Emissions From Stationary Boilers; Restriction of Emission of Sulfur Compounds; Restriction of Emissions of Lead From Specific Lead Smelter Refinery Installations; Sales Tax Exemption; and Open Burn Requirements on Thursday, March 26, 2009. The Public Hearing will begin at 9 a.m. at the Communi First Bank, West Entrance, 915 Via Fort Scott Street, Butler, Missouri. The commission will hear testimony related to the following item(s).

* 10 CSR 10-6.370 (new rule) Control of Sulfur Emissions From Stationary Boilers.

This proposed rule will limit sulfur dioxide (SO₂) emissions from industrial boilers in the St. Louis Nonattainment Area. By reducing SO₂ emissions released into the atmosphere, emissions of fine particles (PM_{2.5}) will be reduced. This rule is intended to curb emissions in the St. Louis Nonattainment Area in compliance with the federal Clear Air Fine Particle Implementation Rule in order to bring the area into attainment with the PM_{2.5} National Ambient Air Quality Standards.

* 10 CSR 10-6.360 (amendment) Restriction of Emission of Sulfur Compounds.

This proposed amendment will limit sulfur dioxide (SO₂) emissions from a primary lead smelter in the St. Louis Nonattainment Area. By reducing SO₂ emissions released into the atmosphere, emissions of fine particles (PM_{2.5}) will be reduced. This rule is intended to curb emissions in the St. Louis Nonattainment Area in compliance with the federal Clear Air Fine Particle Implementation Rule in order to bring the area into attainment with the PM_{2.5} National Ambient Air Quality Standards.

* 10 CSR 10-6.120 (amendment) Restriction of Emissions of Lead From Specific Lead Smelter-Refinery Installations.

This proposed amendment will amend the existing rule to reflect emission limitations contained in the November 2007 revised Doe Run Bulck Prevention of Significant Deterioration (PSD) permit for Doe Run's Bulck facility and address modifications to the facility's processes. The conditions prescribed in the proposed rule amendment are more stringent than the conditions found in the state's existing rule.

* 10 CSR 10-6.320 (repeal) Sales Tax Exemption.

This proposed repeal will rescind a regulation that is no longer required. This rule was written to establish the criteria used by the Missouri Air Conservation Commission to determine eligibility for sales tax exemption for items purchased or leased for the purpose of preventing, abating, or monitoring air pollution in accordance with section 144.030.2(14), RSMo. Legislation enacted in 2008 removes the requirement for the Director of the Department of Natural Resources to certify sales tax exemptions (144.030.2(14)) pertaining to the purchase or lease of certain items used to monitor air pollution. Rescinding the rule will eliminate confusion in the regulated community as it pertains to applicable sales tax exemption standards.

* 10 CSR 10-6.045 (amendment)

* 10 CSR 10-6.045 (amendment) Open Burning Requirements.

This proposed amendment will permit the open burning of certain trade wastes for situations where open burning is in the best interest of the general public or when it can be shown that open burning is the safest and most feasible method of disposal. The rule amendment will also reserve the right for the staff director to deny, revoke or suspend an open burning permit in nonattainment areas when conditions exist where burning would be considered detrimental to air quality standards.

Documents for the above item(s) will be available for review at the Missouri Department of Natural Resources, Air Pollution Control Program, 1659 Elm Street, Jefferson City, (573) 751-4817 and in the Public Notices section of the program web site www.dnr.mo.gov/om/operat/index.html. This information will be available at least 30 days prior to the public hearing date.

Persons with disabilities requiring special services or accommodations to attend the meeting can make arrangements by calling the department directly at (573) 526-4979, the department's toll free number at (800) 324-6248, or by writing two weeks in advance of the meeting to: Missouri Department of Natural Resources, Air Conservation Commission Secretary, P.O. Box 176, Jefferson City, MO 65102. Hearing impaired persons may contact the program through Relay Missouri, (800) 735-2066.

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, Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102-0176, or telephone (573) 526-4979. The department requests 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 comments for the record until 5 p.m. on April 2, 2009; please send two copies of written comments to Chief, Air Quality Planning Section, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176. Email comments regarding rule actions shall be sent to appp@dnr.mo.gov and email comments regarding plan actions shall be sent to appp@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 643.030, 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 Pro.

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DEPARTMENT OF NATURAL RESOURCES
STATE OF MISSOURI

AIR CONSERVATION COMMISSION

Public Hearing

State of Missouri Plan for Implementation,
Maintenance and Enforcement of National Ambient Air
Quality Standards

TRANSCRIPT OF PROCEEDINGS

July 29, 2009

BEFORE: Gary Pendergrass, Chairman
Jack Baker, Commissioner
Ron Boyer, Commissioner
Mark S. Garnett, Commissioner

REPORTED BY:
KELLENE K. FEDDERSEN, RPR, CSR, CCR
MIDWEST LITIGATION SERVICES
3432 West Truman Boulevard, Suite 207
Jefferson City, MO 65109
(573)636-7551

1 CHAIRMAN PENDERGRASS: The hearing will
2 come to order. Let the record show the follow
3 Commissioners are present: Jack Baker, Mark Garnett, Gary
4 Pendergrass and Ron Boyer.

5 The Air Conservation Commission of the
6 State of Missouri has called this public hearing pursuant
7 to Section 643.070, Revised Statutes of Missouri, EPA
8 Promulgated Rule 40 CFR 51.102, for the purpose of hearing
9 testimony related to State of Missouri Plan for
10 Implementation, Maintenance and Enforcement of Natural
11 Ambient Air Quality Standards.

12 The hearing record will close at 5 p.m.,
13 August 5, 2009. Anyone who has not been scheduled to
14 appear but wishes to be heard should indicate that he
15 wishes to speak on the sign-in sheets available at the
16 door.

17 Section 643.100 of the Missouri statutes
18 provides that all oral testimony be given under oath.
19 Accordingly, when you're called to testify, please present
20 yourself to the court reporter first to be sworn in. When
21 you testify, please state your name, business address and
22 your occupation or affiliation. If you have a prepared
23 statement, it would be helpful if you would provide a copy
24 to the Staff Director, court reporter and members of the
25 Commission.

1 Mr. Jim Kavanaugh.

2 JAMES KAVANAUGH, being sworn, testified as follows:

3 MR. KAVANAUGH: Chairman, members of the
4 Commission, my name is James Kavanaugh. I'm Staff
5 Director of the Air Pollution Control Program within the
6 Department of Natural Resources for the Air Conservation
7 Commission. I work at 1659 East Elm Street, Jefferson
8 City, Missouri 65101.

9 I would like to submit as an exhibit the
10 following affidavits showing where legal notices
11 concerning the public hearing were published. Statutory
12 notice of this hearing was published in the Jefferson City
13 News Tribune and posted on the Department of Natural
14 Resources' web page.

15 Notice of this public hearing was mailed to
16 approximately 300 citizens, organizations, corporations,
17 associations and elected officials. I submit that list
18 for the record.

19 In addition, I have for the record the
20 certified mail receipts from four of the local air
21 pollution control agencies as well as copies of receipts
22 from the United States Environmental Protection Agency and
23 states of Illinois and Kansas.

24 Chairman, this concludes my testimony.

25 CHAIRMAN PENDERGRASS: Thank you. Paul

1 McConnell.

2 PAUL McCONNELL, being sworn, testified as follows:

3 MR. McCONNELL: Chairman, members of the
4 Commission, my name is Paul McConnell. I'm employed with
5 the Air Pollution Control Program as an environmental
6 engineer. I work at 1659 East Elm Street, Jefferson City,
7 Missouri.

8 I am here to present this proposed revision
9 to the State of Missouri Plan for Implementation,
10 Maintenance and Enforcement of National Ambient Air
11 Quality Standards, NAAQS. This plan is summarized
12 beginning on page 99 of the briefing document.

13 This plan was developed to meet the
14 requirements of Section 110 of the Federal Clean Air
15 Amendments of 1990. Section 110 of the Clean Air Act
16 Amendments requires that each state submit to the
17 administrator of the U.S. Environmental Protection Agency,
18 EPA, within three years of the promulgation of a new
19 NAAQS, a plan for the implementation, maintenance
20 enforcement of the NAAQS for every air quality region
21 within the state.

22 This plan is being updated as a result of
23 EPA's 2006 revision of the PM10 and PM2.5 standards and is
24 intended to address the ability of the -- of Missouri to
25 implement, maintain and enforce the standard throughout

Appendix D

August, 2009 Public Hearing Comments and Responses

**COMMENTS AND RESPONSES ON
THE PROPOSED REVISIONS TO THE
STATE OF MISSOURI PLAN FOR
IMPLEMENTATION, MAINTENANCE AND ENFORCEMENT OF
NATIONAL AMBIENT AIR QUALITY STANDARDS
AND
RECOMMENDATION FOR ADOPTION**

On July 29, 2009, the Missouri Air Conservation Commission held a public hearing concerning the proposed revision to the State of Missouri Plan for Implementation, Maintenance and Enforcement of National Ambient Air Quality Standards (NAAQS). The following is a summary of comments received and the Missouri Department of Natural Resources' corresponding responses. Any changes to the proposed plan are identified in the responses to comments.

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

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received nine (9) written comments from the U.S. Environmental Protection Agency (EPA).

COMMENT: The EPA commented that the plan revision states that rule 10 CSR 10-6.010 is scheduled for amendment to reflect the revised 2006 24-hour and revoked annual PM₁₀ standards and the revised 2006 24-hour PM_{2.5} primary and secondary standards. The State may want to keep the PM₁₀ annual standard in 10 CSR 10-6.010 to support permitting procedures.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the plan has been amended to remove reference to revoking the annual PM₁₀ standards.

COMMENT: The EPA recommends that Missouri demonstrate its infrastructure and capacity to implement, maintain and enforce the NAAQS for PM_{2.5} by explaining and listing specific state statutes and rules which address the State's legal authorities.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the document has been amended to provide more statute explanation and references to specific State Statutes that are applicable throughout the plan.

COMMENT: The EPA also commented that the applicable statute providing authority for the State to meet the requirements of the infrastructure element, 110(a)(2)(F) on Stationary Source Emissions Monitoring and Reporting, could be referenced. Missouri

could add a citation to Section 643.050(3)(a) RSMo, which gives the state the authority to require persons engaged in operations which result in air pollution to monitor or test emissions and to file reports containing information relating to rate, period of emission and composition of effluent.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, a reference to Section 643.050 (3)(a) was added as the legal authority for fulfilling the requirements of section 110(a)(2)(F).

COMMENT: The EPA also commented that Missouri could also provide additional information, for Section 110(a)(2)(F), regarding making these reports publicly available.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the document language has been amended to clearly state that this information is available for public viewing.

COMMENT: The EPA commented that there is a statement that 10 CSR 10-6.010 will suffice to meet the requirements of 110(a)(2)(A). The State should explain how this rule meets the infrastructure requirement to include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of the Clean Air Act. The department could provide further specifics on the rules, authorities to issue permits and consent agreements to fulfill the requirements of 110 (a)(2)(A). For example, section 643.030 generally authorizes the MACC to control air pollution, which is defined broadly in section 643.020 to include air contaminants, which cause or contribute to injury to public health or welfare. The state should indicate whether this authority and others are adequate for the department to implement the 2006 24-hour PM_{2.5} standard.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the document language has been amended to clearly state the State's authorities regarding control of air pollution.

COMMENT: The EPA commented that demonstration of authority to implement the 2006 NAAQS should be based on existing authorities.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the document language has been amended to clarify that the demonstration of authority to implement the 2006 NAAQS is based on existing authorities.

COMMENT: The EPA also commented that the state revisit the Interstate Transport section of this plan to ensure that it not only addresses PM_{2.5} precursors (SO₂ and NO_x), but also addresses the transport of direct PM_{2.5}.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the document language has been amended to clarify that the transport section includes direct PM_{2.5} as well as PM_{2.5} precursors.

COMMENT: The EPA recommends that the state cite its current rules that establish Significant Harm Levels (SHL) and determine if those rules are adequate to implement

the revised PM_{2.5} NAAQS. As EPA reviews its SHL regulations, it will work with the state.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the document has been amended to more clearly define the program's authority for fulfilling Section 110(a)(2)(G) requirements through rule 10 CSR 10-6.130.

COMMENT: The EPA also commented that under the discussion of Section 110(a)(2)(H), the state should reference their authority to revise their rules, as necessary, to meet the Clean Air Act requirements. EPA would interpret Section 643.055, of the Missouri Revised Statutes, as a relevant state statute which gives the state said authorities. EPA recommends its reference in place of the reference to the 2004 letter to Mr. Joshua A. Tapp at EPA Region 7, which is currently provided in Appendix B.

RESPONSE AND EXPLANATION OF CHANGE: As EPA suggested, the document has been amended to remove the 2004 letter from the document and add reference to Section 643.055 RSMo as the authority for fulfilling 110(a)(2)(H) requirements.

Appendix E

2009 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 State of Missouri Plan for Implementation, Maintenance, and Enforcement of National Ambient Air Quality Standards is hereby adopted by the Missouri Air Conservation Commission this 27th day of August, 2009.

Sam J. Paul, Chairman

_____, Vice-Chairman

Jack C. Baker, Member

Mal L., Member

David C. Zimmerman, Member

Ronald Bey, Member

_____, Member

Appendix F

Particulate Matter 2.5 Area Designations

6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 81

[EPA-HQ-OAR -2007-0562; FRL-8758-3]

RIN-2060-AO02

Air Quality Designations for the 2006 24-Hour Fine Particle (PM_{2.5}) National Ambient Air Quality Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final Rule.

SUMMARY: This rule sets forth the air quality designations for all areas in the United States, including Indian Country, for the 2006 24-hour fine particle (PM_{2.5}) National Ambient Air Quality Standards (NAAQS). The EPA is issuing this rule to identify areas that do not meet the 2006 24-hour PM_{2.5} NAAQS and areas that contribute to PM_{2.5} air pollution in a nearby area that does not meet the PM_{2.5} NAAQS. Identifying these areas helps citizens know whether the air quality where they live and work is healthful or unhealthful. Health studies have shown significant associations between exposure to PM_{2.5} and premature death from heart and lung disease. Fine particles can also aggravate heart and lung diseases and have been linked to effects such as cardiovascular symptoms, cardiac arrhythmias, heart attacks, respiratory symptoms, asthma attacks, and bronchitis. These effects can result in increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days. Individuals that may be particularly sensitive to PM_{2.5} exposure include people with heart or lung disease, older adults, and children. This rule establishes the boundaries for areas designated as nonattainment, unclassifiable/attainment, or unclassifiable. This is an important step toward providing the public health and welfare protections of the 2006 24-hour PM_{2.5} standards. The Clean Air Act requires areas designated nonattainment by this rule to undertake certain planning and pollution control activities to attain the standards as quickly as reasonably possible.

EFFECTIVE DATE: The effective date of this rule is [INSERT DATE: 90 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER].

27. Section 81.326 is amended as follows:

- a. By revising the table heading for "Missouri - PM_{2.5}" to read as set forth below.
- b. By adding a new table entitled "Missouri - PM_{2.5} (24-Hour NAAQS)" to the end of the section.

§81.326 Missouri.

* * * * *

Missouri—PM_{2.5} (Annual NAAQS)

* * * * *

Missouri—PM_{2.5} (24-Hour NAAQS)

Designation
for the 1997 NAAQS \a\

Designation
for the 2006 NAAQS \a\

Designated area	Date\1\	Type	Date\2\	Type
St. Louis, MO-IL:				
Franklin County.....	Unclassifiable/ Attainment	.....	Nonattainment
Jefferson County....	Unclassifiable/ Attainment	.....	Nonattainment
St. Charles County..	Unclassifiable/ Attainment	.....	Nonattainment
St. Louis County....	Unclassifiable/ Attainment	.....	Nonattainment
St. Louis City.....	Unclassifiable/ Attainment	.....	Nonattainment
Rest of State:				
Adair County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Andrew County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Atchison County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Audrain County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Barry County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Barton County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Bates County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Benton County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Bollinger County....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Boone County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Buchanan County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Butler County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Caldwell County....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Callaway County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Camden County.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment

Missouri—PM_{2.5} (24-Hour NAAQS) Continued

Cape Girardeau County	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Carroll County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Carter County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Cass County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Cedar County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Chariton County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Christian County....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Clark County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Clay County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Clinton County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Cole County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Cooper County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Crawford County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Dade County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Dallas County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Daviess County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
DeKalb County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Dent County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Douglas County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Dunklin County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Gasconade County....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Gentry County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment

Missouri—PM_{2.5} (24-Hour NAAQS) Continued

Greene County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Grundy County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Harrison County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Henry County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Hickory County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Holt County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Howard County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Howell County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Iron County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Jackson County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Jasper County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Johnson County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Knox County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Laclede County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Lafayette County....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Lawrence County....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Lewis County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Lincoln County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Linn County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Livingston County...	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
McDonald County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Macon County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment

Missouri—PM_{2.5} (24-Hour NAAQS) Continued

Madison County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Maries County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Marion County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Mercer County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Miller County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Mississippi County..	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Moniteau County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Monroe County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Montgomery County...	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Morgan County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
New Madrid County...	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Newton County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Nodaway County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Oregon County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Osage County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Ozark County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Pemiscot County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Perry County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Pettis County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Phelps County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Pike County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Platte County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment

Missouri—PM_{2.5} (24-Hour NAAQS) Continued

Polk County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Pulaski County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Putnam County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Ralls County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Randolph County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Ray County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Reynolds County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Ripley County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
St. Clair County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
St. Genevieve County	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
St. Francois County.	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Saline County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Schuyler County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Scotland County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Scott County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Shannon County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Shelby County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Stoddard County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Stone County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Sullivan County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Taney County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment
Texas County.....	.....	Unclassifiable/ Attainment	.....	Unclassifiable/ Attainment

Missouri—PM_{2.5} (24-Hour NAAQS) Continued

Vernon County.....	| ..... |	Unclassifiable/ Attainment	| ..... |	Unclassifiable/ Attainment
Warren County.....	| ..... |	Unclassifiable/ Attainment	| ..... |	Unclassifiable/ Attainment
Washington County..	| ..... |	Unclassifiable/ Attainment	| ..... |	Unclassifiable/ Attainment
Wayne County.....	| ..... |	Unclassifiable/ Attainment	| ..... |	Unclassifiable/ Attainment
Webster County.....	| ..... |	Unclassifiable/ Attainment	| ..... |	Unclassifiable/ Attainment
Worth County.....	| ..... |	Unclassifiable/ Attainment	| ..... |	Unclassifiable/ Attainment
Wright County.....	| ..... |	Unclassifiable/ Attainment	| ..... |	Unclassifiable/ Attainment

\a\ Includes Indian Country located in each county or area, except as otherwise specified.

\1\ This date is 90 days after January 5, 2005, unless otherwise noted.

\2\ This date is 90 days after [PUBLICATION DATE], unless otherwise noted.

Appendix G

Missouri Air Quality Monitoring Data

PM_{2.5} Total Mass for Years 2005, 2006, 2007 and 2008

	24-hr Std = 35 µg/m ³ 98th percentile				3-Year Averages	
	98th percentile					
St. Louis	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>05 - 07</u>	<u>06 - 08</u>
West Alton	38.5	27.1	32.9	Disc.	32.8	Disc.
Margaretta	40.0	30.5	Disc.		Disc.	
Blair Street	40.3	29.2	32.1	30.8	33.9	30.7
Branch Street			35.4	26.7		
South Broadway	38.6	30.4	31.7	27.3	33.6	29.8
Mound Street	40.8	29.6	33.8	27.1	34.7	30.2
Clayton	43.5	27.7	30.3	26.4	33.8	28.1
Oakville				24.5		
Arnold	39.9	30.2	32.6	Reloc.	34.2	Reloc.
Arnold West				26.7		29.8
Kansas City						
Liberty	31.2	25.4	26.9	19.5	27.8	23.9
Troost	34.2	22.1	27.4	27.0	27.9	25.5
RG- South	31.4	21.1	26.0	19.8	26.2	22.3
Outstate						
El Dorado Springs	33.1	21.4		23.9		
Ste. Genevieve	34.2	33.8	25.8	36.1	32.0	27.7
MSU	33.6	22.3	29.3	22.3	28.4	24.6
St. Joseph	35.1	26.9	28.3	23.2	30.1	26.4

	Annual Mean Std = 15.0 $\mu\text{g}/\text{m}^3$				Design Values	
	Annual Mean					
St. Louis	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>05 - 07</u>	<u>06 - 08</u>
West Alton	15.2	11.6	13.2	Disc.	13.3	Disc.
Margaretta	15.3	12.5	Disc.		Disc.	
Blair Street	16.1	13.4	13.9	12.9	14.5	13.4
Branch Street				13.4		
South Broadway	15.9	13.1	14.0	12.5	14.3	13.2
Mound Street	15.9	13.7	14.3	12.7	14.6	13.6
Clayton	15.5	11.8	13.1	12.0	13.5	12.3
Oakville				13.4		
Arnold	15.4	12.6	13.8		13.9	Disc.
Arnold West				11.4		12.6
Kansas City						
Liberty	12.2	10.5	11.3	10.1	11.3	10.6
Troost	14.1	11.5	12.3	11.7	12.6	11.8
RG- South	11.6	10.1	10.8	10.0	10.8	10.3
Outstate						
El Dorado Springs	12.1	11.9		10.6		
Ste. Genevieve	15.0	11.8	13.1	11.7	13.3	12.2
MSU	13.0	10.7	11.8	10.7	11.8	11.1
St. Joseph	14.5	12.0	12.1	12.1	12.9	12.1

Appendix H

2009 Missouri Air Quality Monitor Locations Oxides of Nitrogen, Particulate Matter, Ozone and Oxides of Sulfur

Agency	Site Identification	Pollutant
Site Name		
<u>Environmental Services</u>		
	29-097-0004*	
	Alba	O ₃ (1)
	29-099-0019	
	Arnold West	O ₃ (1) PM _{2.5} PM _{2.5} (2)
	29-186-0005	
	Bonne Terre	NO ₂ O ₃ (1)
	29-097-0003	
	Carthage Stone	PM ₁₀ (2)
	29-039-0001	
	El Dorado Springs	O ₃ (1) PM _{2.5} PM _{2.5} (2)
	29-157-0001	
	Farrar	O ₃ (1)
	29-019-0011	
	Finger Lakes	O ₃ (1)
	29-113-0003	
	Foley	O ₃ (1)
	29 047 0005	
	Liberty	NO ₂ O ₃ (1) PM _{2.5} PM _{2.5} (2)
	29-137-0001	
	Mark Twain State Park	O ₃ (1) PM ₁₀ SO ₂
	29-027-0002	
	New Bloomfield	O ₃ (1)

29-183-1004 Orchard Farm	O ₃ (1)
29 037-0003 Richards Gebaur South	O ₃ (1) PM _{2.5}
20-047-0006 Rocky Creek	O ₃ (1)
29-003-0001* Savannah	O ₃ (1)
29-186-0006 Ste. Genevieve	PM _{2.5}
29 021 0005 St. Joseph Pump Station	PM _{2.5} PM ₁₀
20-049-0001 Trimble	O ₃ (1)
29 095 0034 Troost	NO ₂ PM _{2.5} PM _{2.5} (2) PM ₁₀ SO ₂
29 095 0035 Van Brunt	PM ₁₀
29-047-0003 Watkins Mill State Park	O ₃ (1)
29-183 1002 West Alton	NO ₂ O ₃ (1)
<u>ST LOUIS COUNTY</u>	
29-189-0004 Sunset Hills	NO ₂ SO ₂

29-189 0005 Pacific	O ₃ (1)
29 189 0014 Maryland Heights	NO ₂ O ₃ (1) SO ₂
29-189-0015 Oakville	PM ₁₀
29 189 3001 Ladue	NO ₂ PM _{2.5} (2) SO ₂
29 189 2003 Clayton Animal Shelter	PM _{2.5}
<u>ST LOUIS CITY</u>	
29 510 0007 South Broadway	PM _{2.5} SO ₂
29-510-0085 Blair Street	O ₃ (1) PM _{2.5} PM _{2.5} (2) PM ₁₀
29-510-0086 Margaretta	NO ₂ PM ₁₀ SO ₂
29-510-0087 Mound Street	PM ₁₀ PM _{2.5}
29-510-0088 Hall Street	PM ₁₀ (2)
29-510-0093 Branch Street	PM _{2.5} PM ₁₀ (2)

SPRINGFIELD

29 077 0026

South Charleston SO₂

29 077 0032

Missouri State University PM₁₀
PM_{2.5}
SO₂

29 077 0036

Hillcrest High School NO₂
O₃ (1)

29-077-0042

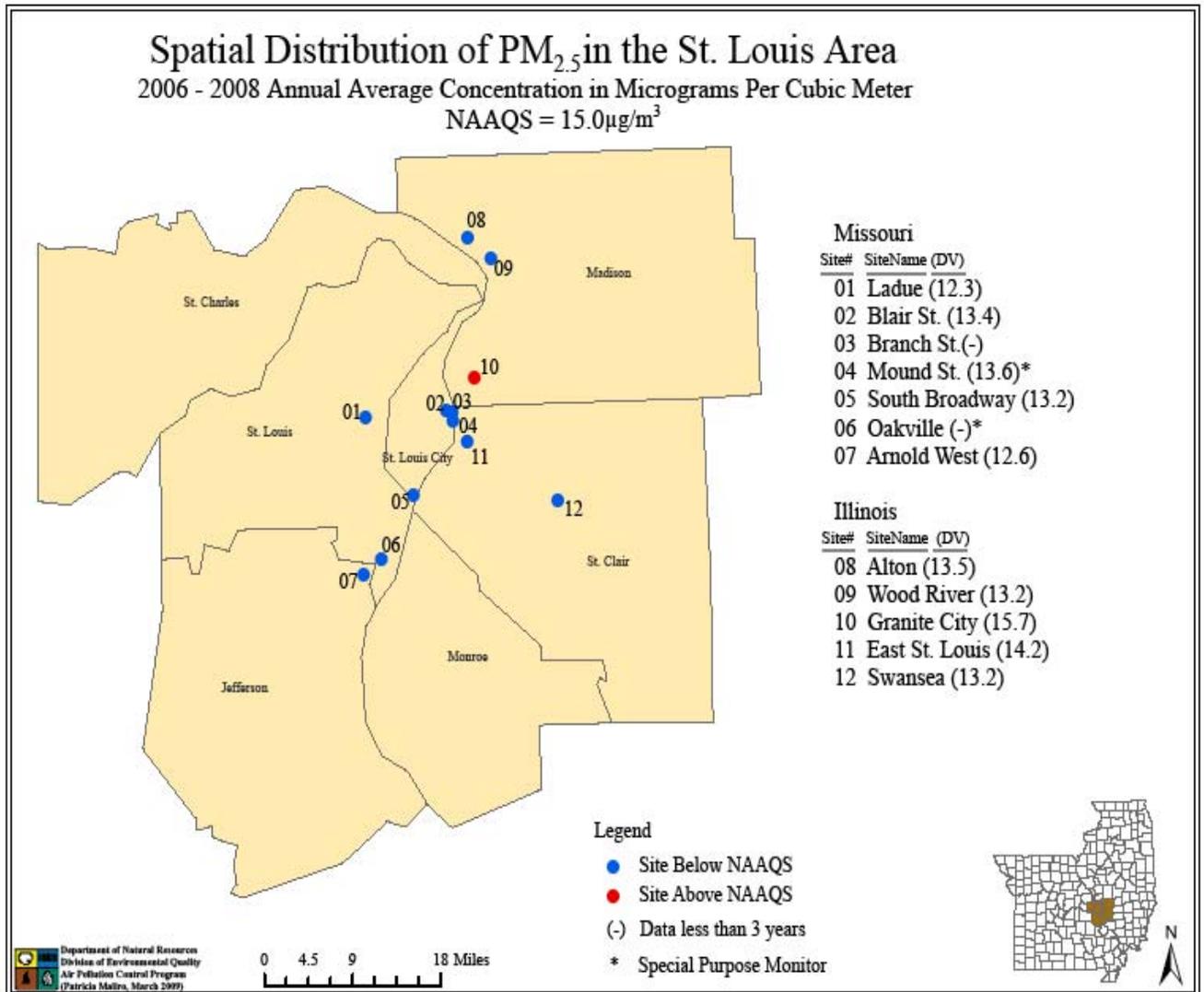
Fellows Lake O₃

(1) Operates only during ozone season (4-1/10-31)

(2) Some PM_{2.5} and PM₁₀ readings are measured and recorded by Tapered Element Oscillating Microbalance Monitors (TEOM).

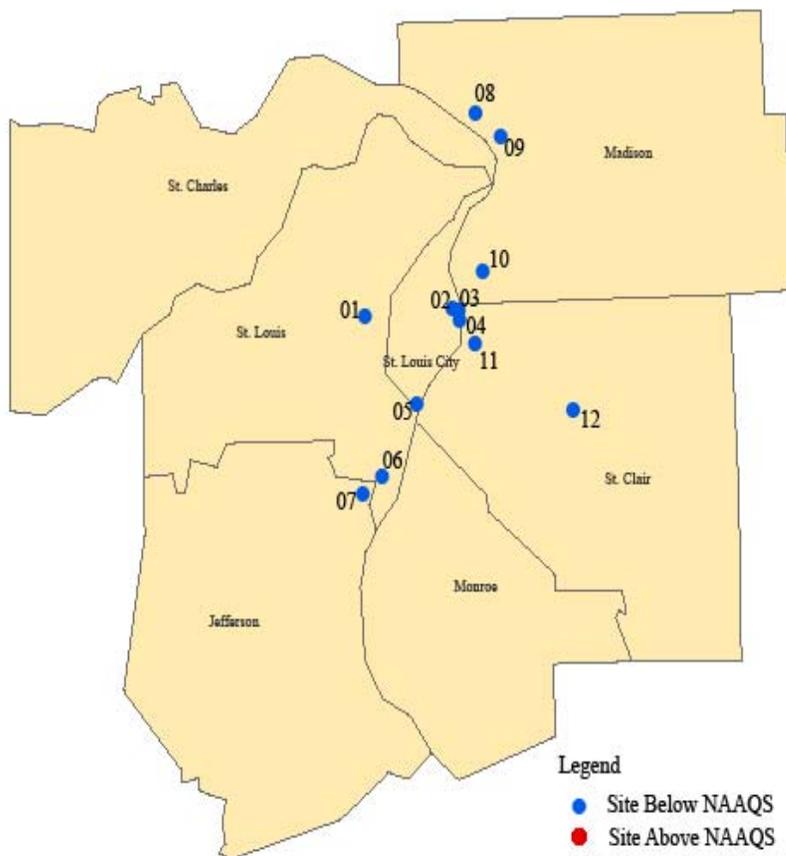
* Sampling to begin by May, 2009

Missouri State Map Air Monitor Locations



Spatial Distribution of the 24-hour PM_{2.5} in the St. Louis Area

2006 - 2008 98th Percentile Concentration in Micrograms Per Cubic Meter
 NAAQS = 35.0 μg/m³



Missouri

Site#	SiteName (DV)
01	Ladue (28.1)
02	Blair St. (30.7)
03	Branch St. (-)
04	Mound St. (30.2)*
05	South Broadway (29.8)
06	Oakville (-)*
07	Arnold West (29.8)

Illinois

Site#	SiteName (DV)
08	Alton (30.9)
09	Wood River (29.4)
10	Granite City (34.7)**
11	East St. Louis (29.1)
12	Swansea (29.3)

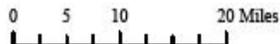
Legend

- Site Below NAAQS
- Site Above NAAQS
- (-) Data less than 3 years

* Special Purpose Monitor

** excludes the flagged value of 41.8 μg/m³ on 07/05/2008

Department of Natural Resources
 Division of Environmental Quality
 Air Pollution Control Program
 (Patricia Matros, March 2009)



Statewide Spatial Distribution of the PM_{2.5} Mass

2006-2008 24-hour Design Values (DV): 24-hr Std = 35.0 µg/m³

St. Louis Area

- | Site# | Site Name | (DV) |
|-------|----------------|---------|
| 01 | Ladue | (28.1) |
| 02 | Blair St. | (30.7) |
| 03 | Branch St.(-) | |
| 04 | Mound St. | (30.2)* |
| 05 | South Broadway | (29.8) |
| 06 | Oakville (-)* | |
| 07 | Arnold West | (29.8) |

Kansas City Area

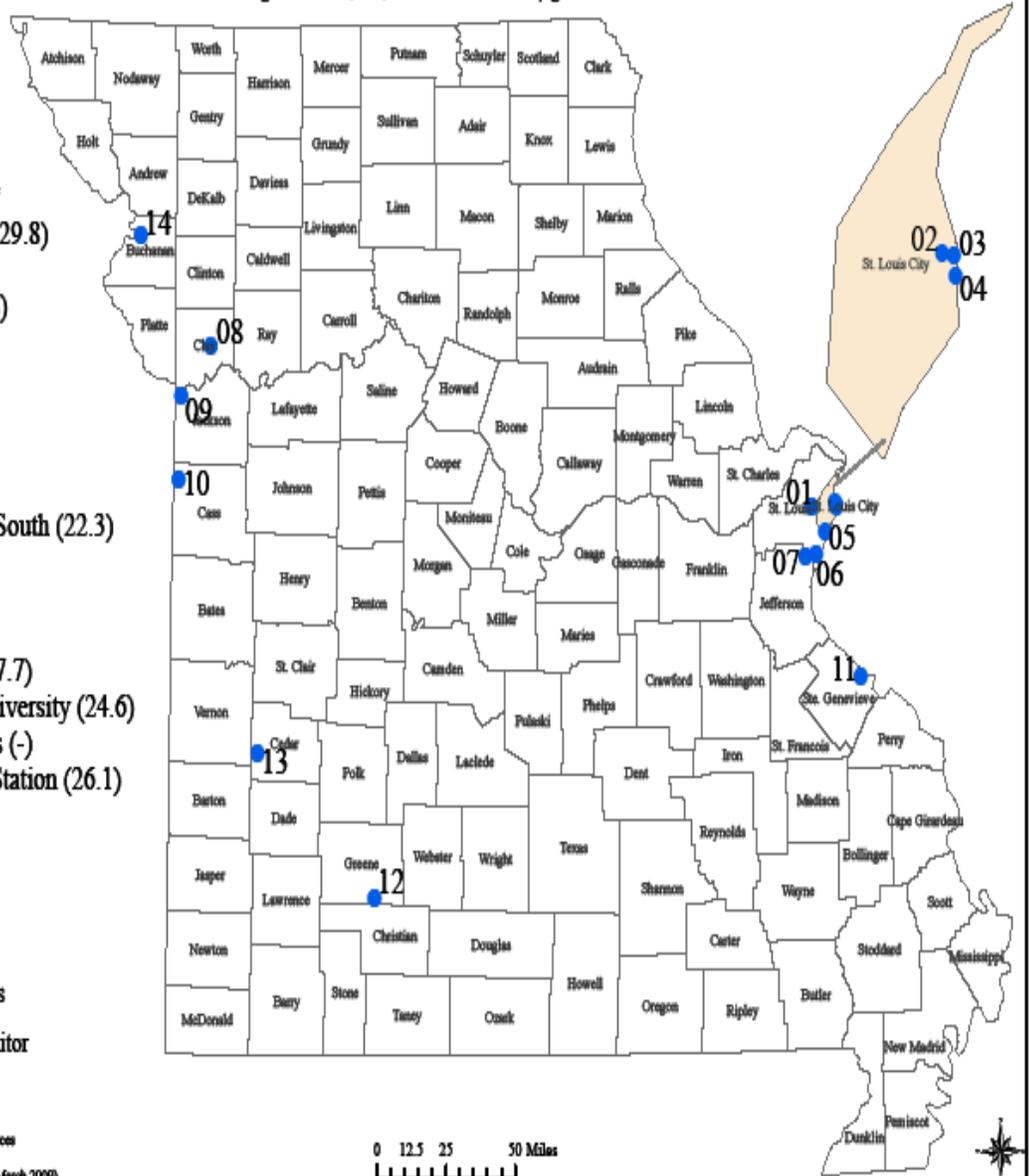
- | Site# | Site Name | (DV) |
|-------|-----------------------|--------|
| 08 | Liberty | (23.9) |
| 09 | Troost | (25.5) |
| 10 | Richards Gebaur-South | (22.3) |

Outstate Area

- | Site# | Site Name | (DV) |
|-------|---------------------------|--------|
| 11 | Ste. Genevieve | (27.7) |
| 12 | Missouri State University | (24.6) |
| 13 | El Dorado Springs (-) | |
| 14 | St. Joseph Pump Station | (26.1) |

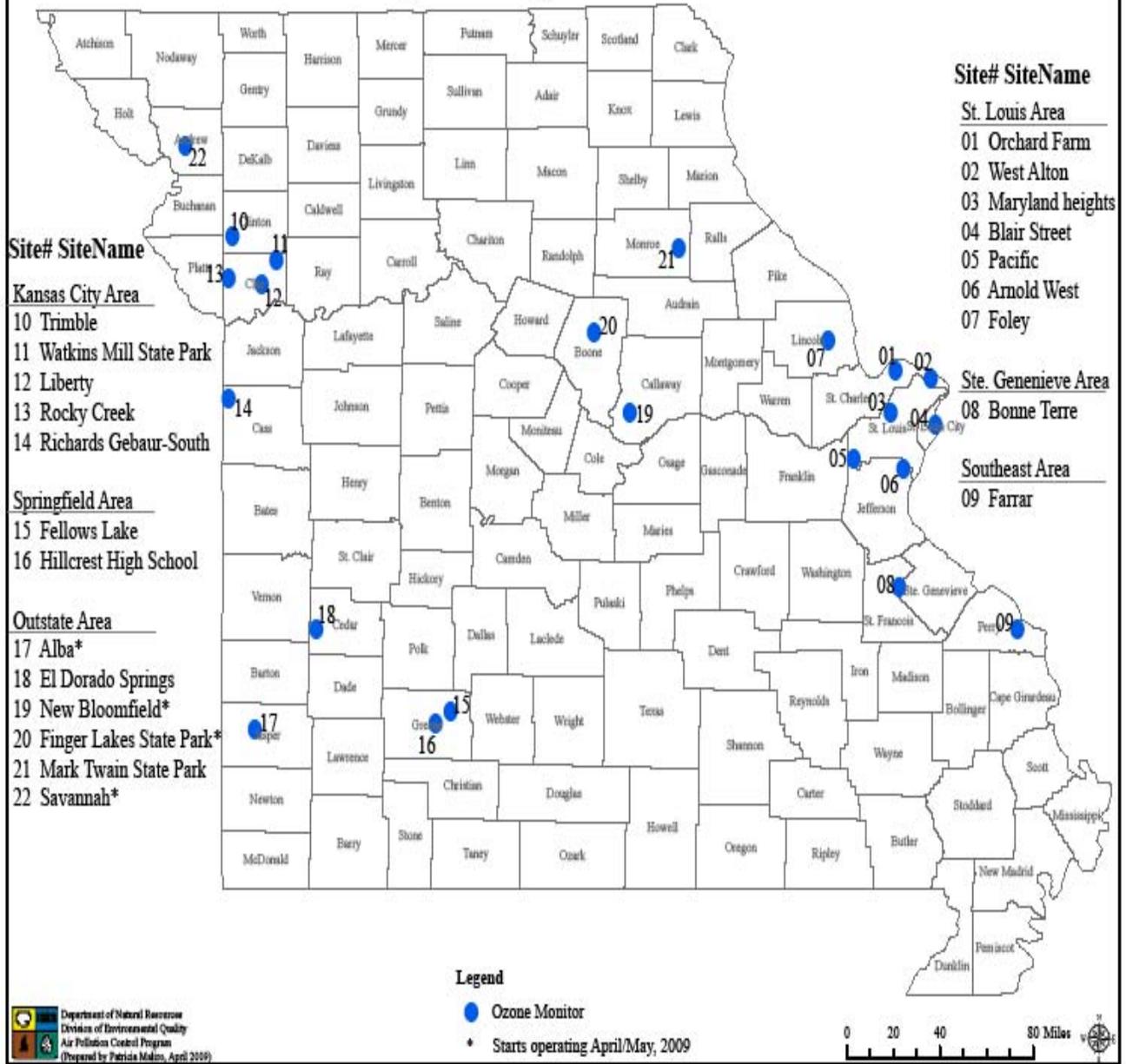
Legend

- Site Below NAAQS
- Site Above NAAQS
- (-) Data less than 3 years
- * Special Purpose Monitor



Missouri Department of Natural Resources
 Air Pollution Control Program
 (Prepared/Updated by Patricia Malloy, March 2009)

Statewide Ozone Monitoring Network, 2009



Appendix I

Control of Sulfur Emissions From Stationary Boilers Rule and Restriction of Emissions of Sulfur Compounds Rule MACC Adoption Certifications

Order of Rulemaking

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.

10 CSR 10-5.570 (new rule) Control of Sulfur Emissions From Stationary Boilers **ADOPTED** by the Missouri Air Conservation Commission this 30th day of April, 2009.

Sam J. Paul, Chairman

Kevin D. Benschoten, Vice-Chairman

Ronald Boyer, Member

Jack C. Bales, Member

_____, Member

_____, Member

_____, Member

Order of Rulemaking

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.

10 CSR 10-6.260 (amendment) Restriction of Emission of Sulfur Compounds is hereby **AMENDED** by the Missouri Air Conservation Commission this 30th day of April, 2009.

Ray J. Paul, Chairman

Linda Rosebush, Vice-Chairman

Ronald Boyer, Member

Jack C Baker, Member

_____, Member

_____, Member

_____, Member

