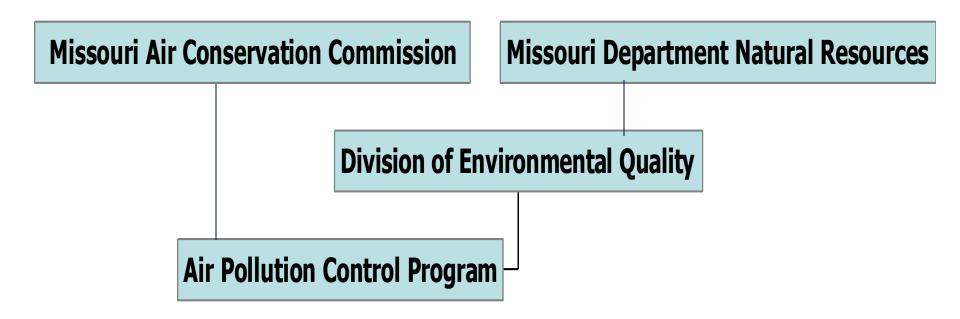


# Air Pollution Control Program REGFORM Air Seminar

March 2017









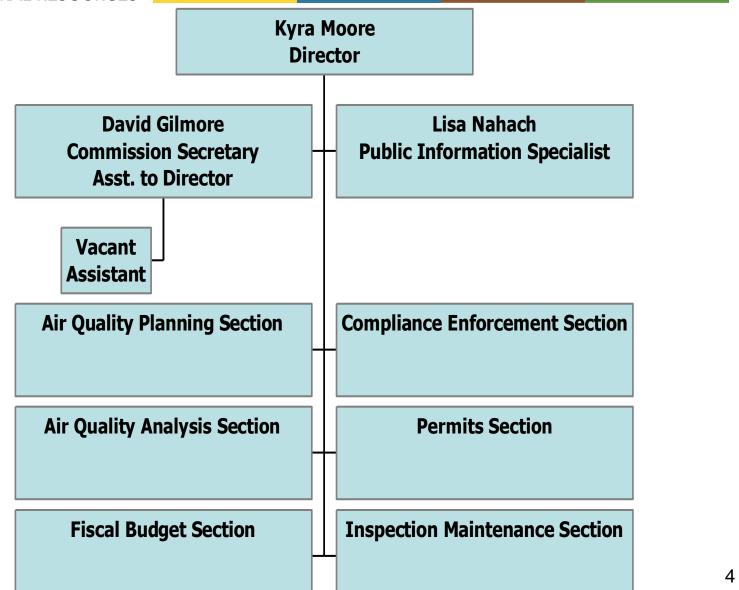
#### Missouri Air Conservation Commission

- David Zimmermann, Chair
- Jack Jones, Vice Chair
- Mark Garnett
- Jack Baker
- Gary Pendergrass
- Two vacancies, Commission board page:

https://governor.mo.gov/get-involved/boards-and-commissions



#### **AIR POLLUTION CONTROL PROGRAM**





#### Air Pollution Work – Team Effort

- Air Pollution Control Program
- 5 Department Regional Offices
  - St. Louis, Kansas City, Northeast (Macon), Southeast (Poplar Bluff), Southwest (Springfield)
    - Steve Boone, Northeast Regional Office
- Environmental Services Program
  - Will Wetherell, Doug Thompson
- Local Air Agencies
  - St. Louis County, St. Louis City, Kansas City, Springfield
  - Work dependent on agency



### Air Quality Planning Section

- Rulemakings
- State Implementation Plan (SIP) development
- National Ambient Air Quality Standard (NAAQS) boundary recommendations
- Computer modeling to support SIPs and for attainment demonstrations



# Air Quality Planning Section Darcy Bybee, Section Chief

Cheri Bechtel

Rules Unit

Wayne Graf

**Aaron Basham** 

Paul Myers

Shelly Reimer

Seanmichael Stanley

SIP Unit

Emily Wilbur

Assem Abdul

Stacy Allen

Adel Alsharafi

Mary Evelyn Barnes

Mark Leath

Cliff Li

Bob Randolph



#### Permit Section

- Issues permits for all applicable sources of air pollution
  - Construction and Operating Permits
- Processes permit applicability requests
- Performs air quality analysis for proposed sources
- Oversees permitting for local air agencies



# Permits Section Kendall Hale, Section Chief

**Operating Permits** 

Michael Stansfield

Kristin Bailey

**David Buttig** 

Bern Johnson

Jill Wade

Kasia Wasescha

Nicole Weidenbenner

Berhanu Getahun-StL

**Construction Permits** 

Susan Heckenkamp

Sam Anzalone

Alana Hess

Jordan Hull

Kathy Kolb

**David Little** 

Hans Robinson

Ryan Schott

Chad Stephenson

Chia-Wei Young

Permit Modeling

Dawn Froning

Kelly Robson



#### Air Quality Analysis Section

- Obtains, tracks and analyzes air emission inventory questionnaire (EIQ) data
- Develops point emission inventory
- Coordinates statewide air monitoring network
- Develop Maximum Achievable Control Technology (MACT) databases
- Small business compliance assistance



# Air Quality Analysis Section Steve Hall, Section Chief

**Data Management Unit** 

Nathan O'Neil

Jeanette Barnett

Jeanne Brown

Erin Henry

Jeffrey Stevens

Terry Stock

**Brenda Wansing** 

**Daronn Williams** 

**Monitoring Unit** 

Patricia Maliro

Jerry Downs

Eric Giroir

Michael Maddux

Carlton Flowers



#### Compliance/Enforcement Section

- Resolves enforcement actions from Regional Offices/Local Agencies; Refers cases to Attorney General, if necessary
- Conducts oversight of Vapor Recovery/IM, and stack tests
- Issues Asbestos Certifications, Contractor Registrations and Training Provider Accreditations, and tracks notifications
- Provides General Compliance Assistance
- Works with Regional Offices/Local Agencies to investigate citizen concerns and conduct routine inspections
  - asbestos, vapor recovery, open burning, dust, odors and general compliance



# Compliance/Enforcement Section Richard Swartz, Section Chief

<u>Asbestos Unit</u>

Stan Payne

**Ethan Smith** 

**Debbie Meyers** 

Cari Gerlt

Sara Hoover

**Compliance Unit** 

Russell Sullivan

Cliff Johnson

**Ernest Wilson** 

Jaime Rizo

Heather

Lehman

Derek Apel

Testing &

**Emissions Unit** 

Josh Vander Veen

Steve Sidebottom

John Bullard

Laura Guinn

Stephanie Durbin

Connie Kinney



### Fiscal and Budget Section

- Prepares budget, manages cash flow and time accounting, accounts payable & receivables
- Administers federal grant projects
- Coordinates state and federal workplans and local memorandum of agreements
- Maintains record retention and responds to Sunshine Requests
- Reviews legislation and fiscal note requests



# Fiscal and Budget Carolyn Kliethermes, Section Chief

Grant Management

Deedra Beye

Financial Operations Unit

Tim Largent

**Sharon Thompson** 

Fileroom Management

**Amber Evans** 

<u>Receptionist</u>

**Debbie Heinrich** 



### St. Louis Inspection and Maintenance

- Oversees vehicle inspection and maintenance program
- Performs covert and overt audits of emissions testing facilities
- Provides technical assistance and customer education



# St. Louis Inspection and Maintenance Chuck Dachroeden, Section Chief

Technical Services Unit

Joe Winkelmann

Neena Nallaballi

Angelo Vitullo

Jackie Heisler

**Inspection Services Unit** 

David Offu

Caroline Kargas

Antwane President

Mark Specht



### General Updates

Air Pollution Control Program



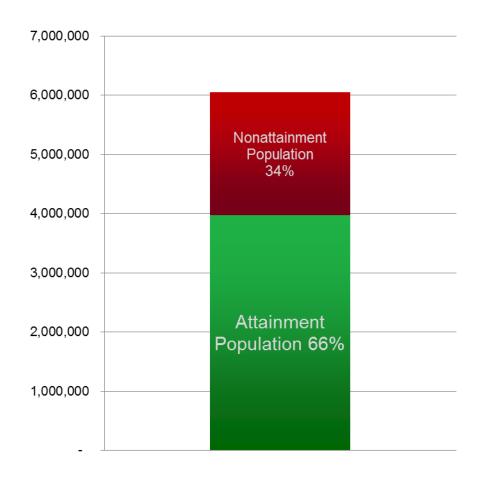
### Air Quality Goals

- Improve air quality for all Missourians
  - Ozone, Lead, Particulate Matter
- Continue timely issuance of construction permits
- Eliminate Title V permit backlog
- Conduct timely inspections

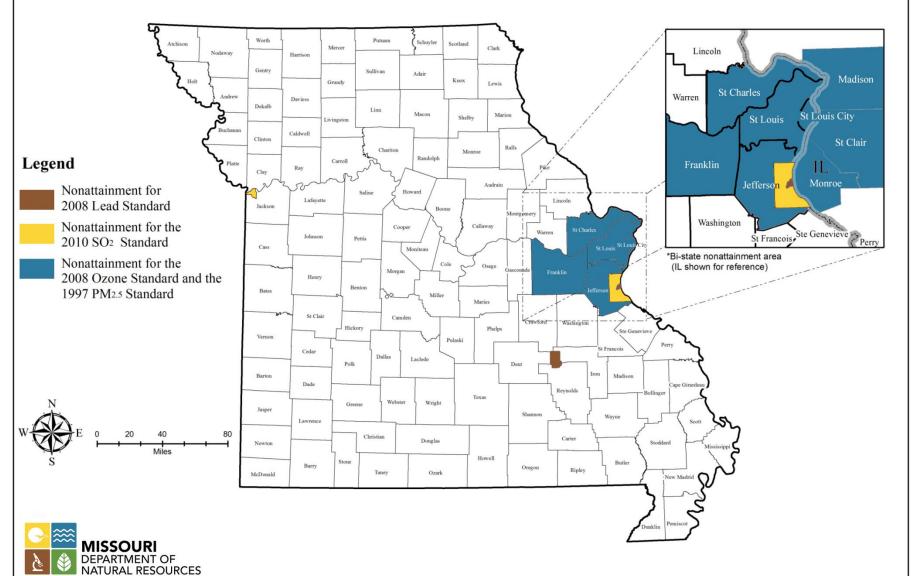


# Statewide Air Quality

66% of all
 Missourians are
 living in areas
 meeting all
 NAAQS
 (Ozone, Lead, PM<sub>2.5</sub>)

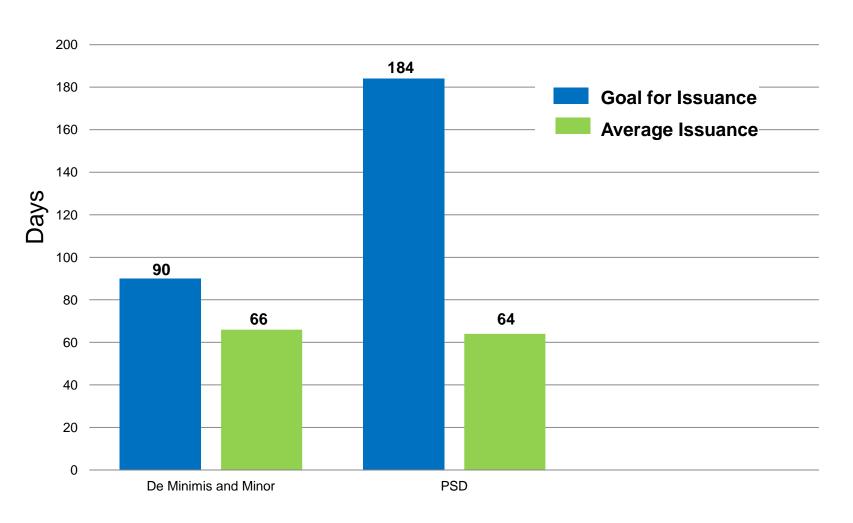


#### **Current Nonattainment Areas**



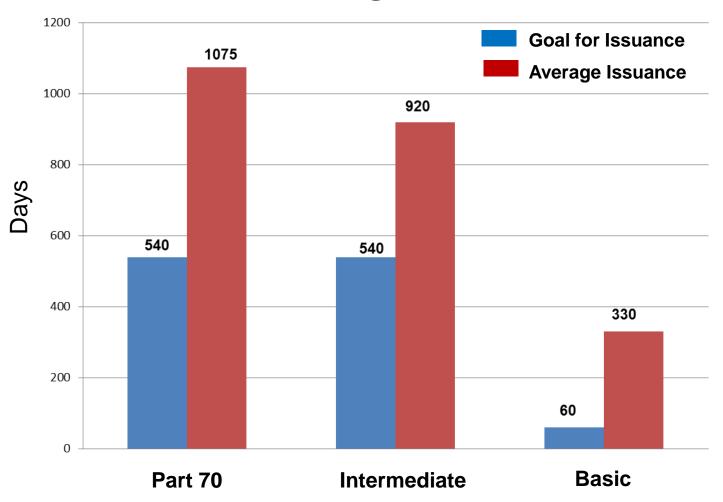
Division of Environmental Quality Air Pollution Control Program Prepared: Feb. 6, 2017

#### Air Construction Permit Issuance





# Title V Operating Permit Issuance





### Permitting

- New fees started January 1, 2017
  - Working through transition if questions,
     please call (573) 526-3835
- Addressing Operating Permit Backlog
- Basic Operating Permit Updates
- Application Updates



### Volkswagen

- https://www.epa.gov/enforcement/volkswa gen-clean-air-act-partial-settlement
- https://www.vwcourtsettlement.com/en/
- For future notifications:
   http://dnr.mo.gov/env/apcp/cleandieselprogram.htm





## Air Quality Analysis Updates

Steve Hall

Air Pollution Control Program



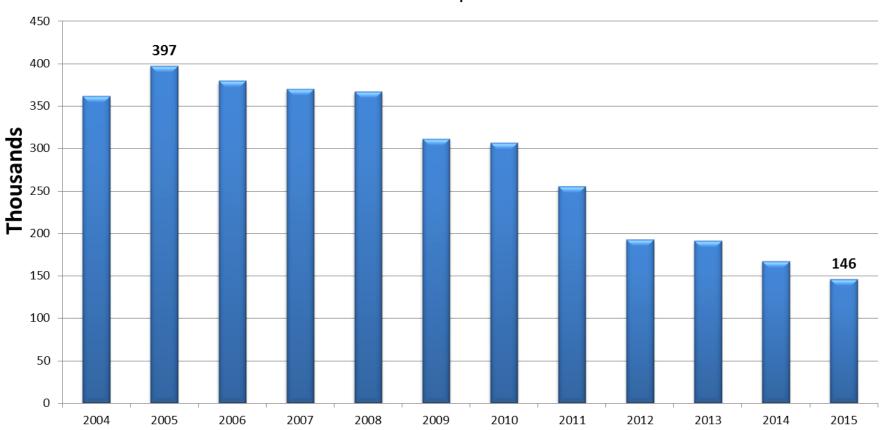
### <u>Updates</u>

- SO<sub>2</sub> NO<sub>2</sub>, Lead and Particulate Matter Emissions Inventory and Trends
- Ozone Ambient Air Monitoring and Trends
- Website Resources



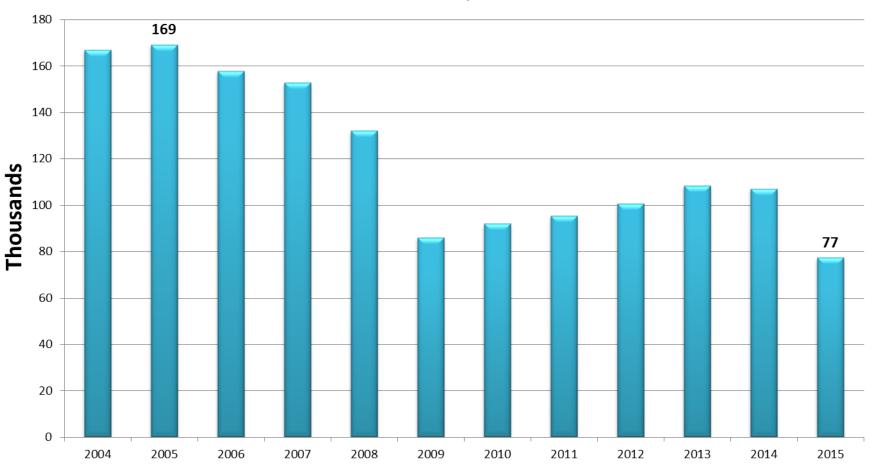
#### Sulfur Dioxide (SO<sub>2</sub>) Point Source Emissions







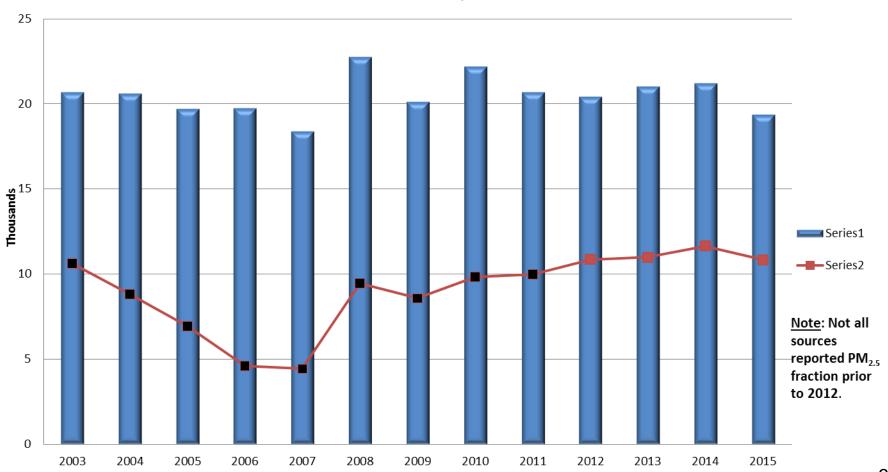
#### Nitrogen Dioxide (NO<sub>2</sub>) Point Source Emissions Thousand Tons per Year





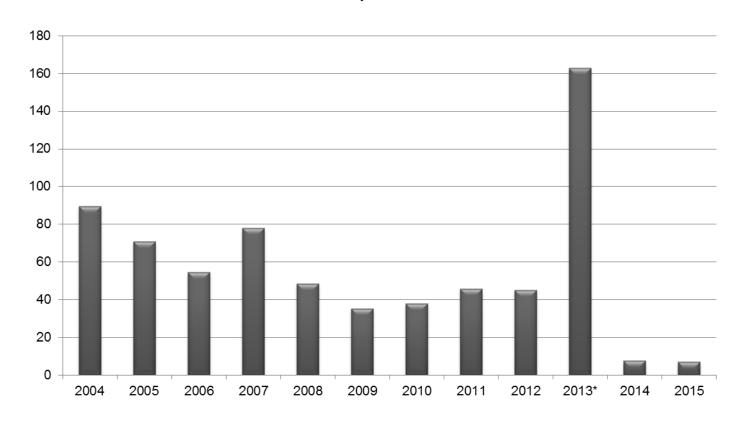
#### Particulate Matter (PM<sub>10</sub>) Point Source Emissions

(With PM<sub>2.5</sub> Fraction) Thousand Tons per Year





#### Airborne Lead Point Source Emissions Tons per Year



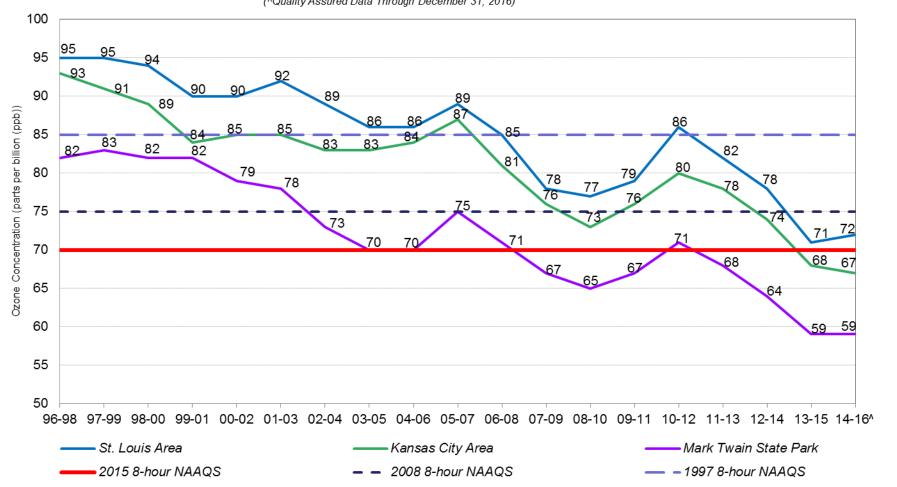
<sup>\*</sup> Increased lead emissions for 2013 is the result of stack testing at a single facility. The facility shut down the processes that release emissions through the tested stacks at the end of the 2013 emission year, and the increased emissions are the result of the shut down activities.



# Ozone (O<sub>3</sub>) Ambient Air Monitoring

1996-2016 8-hour Ozone Design Value Trends St. Louis, Kansas City Areas & Rural Site

(^Quality Assured Data Through December 31, 2016)





# SO<sub>2</sub> Preliminary Design Values

MISSOURI  DEPARTMENT OF	1-HOU									1		
NATURAL RESOURCES							Report Date	2/27/2017				
Sites	County	99th Percentile						# of Exceedances		Design Value		
St. Louis		1-hour Average (ppb)				b)		75 ppb (2010 Std)			Year-to-Date	
State Sites		2013	2014	2015	2016 <sup>b</sup>	2017 <sup>cd</sup>	CV - 75	2016 <sup>c</sup>	13-15	14-16 <sup>b</sup>	15-17 <sup>c</sup>	
Herculaneum, Mott	Jefferson	143	18	38	13	6	177	0	66	23	19	
Blair Street	St. Louis City	42	41	24	9	6	195	0	36	25	13	
Margaretta	St. Louis City	20	22	17	8	7	203	0	20	16	11	
Rider Trail, I-70^^^	St. Louis Co.	-	-	-	12	6	N/A	0	***	***	***	
Ameren Missouri, Labadie Sites												
Northwest^	St. Charles	-	-	28	27	5	173	0	***	***	20	
Southwest*	Franklin	-	-	-	-	3	N/A	0	-	-	***	
North*	St. Charles	-	-	-	-	15	N/A	0	-	-	***	
Valley^	Franklin	-	-	34	22	11	172	0	***	***	22	
Ameren Missouri, Rush Island Sites												
Natchez^^	Jefferson	-	-	13	27	5	188	0	-	-	15	
Weaver^^	Jefferson	-	-	24	23	5	181	0	-	-	17	
Fults, IL^^^	Monroe, IL	-	-	-	14	8	N/A	0	-	-	***	
Kansas City												
State Sites												
Troost	Jackson	156	125	142	9	18	77	0	141	92	56	
Springfield												
State Sites												
South Charleston†	Greene	31	33	14	3	†	211	0	26	17	†	
City Utilities of Springfield Sites												
James River South†	Greene	27	33	16	4	†	208	0	25	18	†	
Outstate												
State Sites												
Buick Northeast	Iron	85	52	42	43	27	143	0	60	46	37	
Mark Twain State Park	Monroe	8	9	6	6	3	216	0	8	7	5	
Doe Run Buick Sites												
Hwy. 32 Northeast*	Iron	-	-	-	-	30	N/A	0	-	-	***	
West Entrance*	Iron	-	-	-	-	19	N/A	0	-	-	***	
County Road 75*	Iron	-	-	-	-	40	N/A	2	-	-	***	
Magnitude 7 Metals Sites							. 471	=				
Site #1 AECI Water Tower Location	* New Madrid	-	-	-	-	5	N/A	0	-	-	***	
Site #2 East Graveyard*	New Madrid	-	-	-	-	3	N/A	0	_	-	***	
Site #3 West Entrance*	New Madrid	_	_		_	3	N/A	0		_	***	



#### Website Resources



Which pollutants does EPA monitor most closely?

Click here to learn about the six criteria pollutants.

How does Missouri track air pollution?

We track our air

pollution with a

network of air

monitoring sites

located around the

state. To visit our

monitoring sites click

network of air

on the map.



Our mission is to maintain the purity of Missouri's air to protect the health, general welfare and property of the people. Whether urban citizen or rural resident, everyone who lives in Missouri needs and deserves clean air. In other words, the 6 million residents of Missouri are our



Air Quality

Asbestos Clean Power Plan

Air Pollutants

Forms and Applications

**Air Program Advisory Forum** 

Program Home Page
Air Conservation Commission

**Gateway Vehicle Inspection Program** 

**Laws and Regulations** 

NAAQS Boundary Designations

Ozone

Permits

Public Notices-Comment Periods

QAPP Template

Air Pollution Compliance/Regulatory Assistance

State Plans

Vapor Recovery Information and Compliance Requirements

#### customers. What has Missouri done to improve our air?

Visit this link for more information on **Missouri Skies Now and Then.** 

#### How does the scientific community rate air quality?

With the Air Quality Index we track ozone and particle pollution. This report tells you how clean (or polluted) the air is to help you understand what local air quality means in relation to your health. Each color code corresponds to a different level of health concern. The specific colors of the Air Quality Index makes it easier to understand where the air quality falls on the scale. **More...** 

#### Convenience Fee Applicable to Credit Card Payments

Effective July 1, 2014, per Chapter 37, Section 37.007, of the Missouri Revised Statutes, a convenience fee will be charged to all customers who wish to pay by electronic method. The convenience fee will be retained by a third-party vendor, Collector Solutions, Inc., not the Missouri Department of Natural Resources.

Transaction Dollar Amount

Fee

@Jeffers on

City

#### **Contact Information**

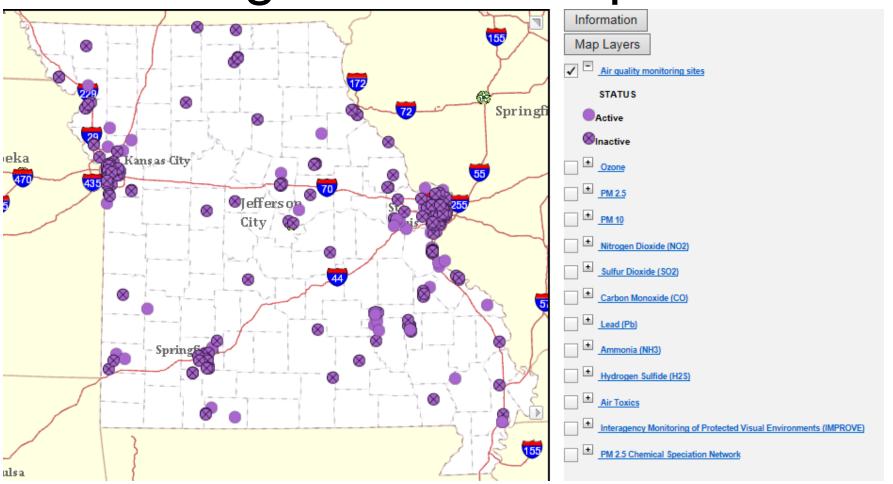
**Air Pollution Control Program** P.O. Box 176

Jefferson City, MO 65102

#### Monitoring Information-'Bookmark'

- Design Value Reports
- Preliminary hourly data reports
- Monitoring Network
   Plans and More
- More improvements coming...

# Monitoring Site GIS Map





# Air Quality Planning Updates

Darcy Bybee
Air Pollution Control Program



## <u>Updates</u>

- Ozone Status Overview
- Sulfur Dioxide (SO<sub>2</sub>) Status Overview
- Webpage Resources and Updates



### Ozone Status Overview



# 2008 Ozone Standard (75 ppb)

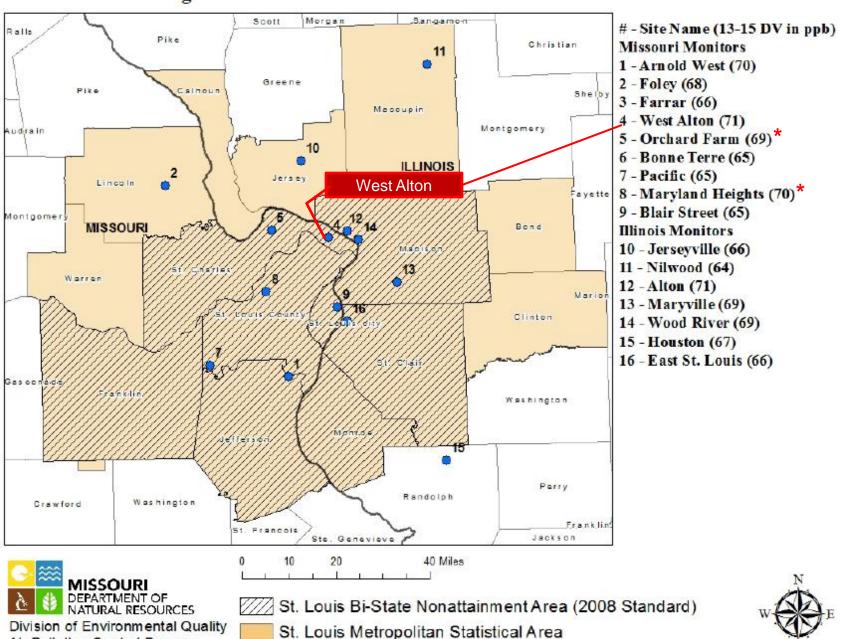
- Based on 2013-2015 air monitoring data, Missouri has attained the standard in St. Louis! <a href="mailto:dnr.mo.gov/env/apcp/airpollutants.htm">dnr.mo.gov/env/apcp/airpollutants.htm</a>
- Submitted Redesignation Request and Maintenance Plan to EPA (Sept 12, 2016). <a href="mailto:dnr.mo.gov/env/apcp/sips.htm">dnr.mo.gov/env/apcp/sips.htm</a>



## 2015 Ozone Standard (70 ppb)

- Based on 2013-2015 air monitoring data:
  - Developed recommendation for the same St.
     Louis area as nonattainment (Sept. 30, 2016)
  - <u>dnr.mo.gov/env/apcp/naaqsboundarydesignations.htm</u>
  - We'll cover the timeline in a minute.

Figure 3. St. Louis MSA and Current Nonattainment Area's 2015 Ozone Monitoring Sites and their 2013-2015 Design Values



Air Pollution Control Program



### **Timeline**

Sept 30, 2016

Recommendation to EPA

June 2017

EPA sends 120-day letter

Aug 2017

120-day letter responses due

Oct 2017

EPA finalizes area designations

2020

SIPs due



# Sulfur Dioxide (SO<sub>2</sub>) Status Overview

### 2010 SO<sub>2</sub> Standard (75 ppb)

- 4 Rounds of Designations
- For more information:
  - General SO<sub>2</sub> Information: <a href="mailto:dnr.mo.gov/env/apcp/so2.htm">dnr.mo.gov/env/apcp/so2.htm</a>
  - SO<sub>2</sub> Air Quality Monitoring:
     <u>dnr.mo.gov/env/apcp/docs/so2monitoringdata.pdf</u>
  - Boundary Recommendations:
     <u>dnr.mo.gov/env/apcp/naaqsboundarydesignations.htm</u>
  - State Implementation Plans:
     dnr.mo.gov/env/apcp/sips.htm



# Implementation: 2010 SO<sub>2</sub> Standard

Round 1: Existing Monitors

- 2013: Two (2) areas designated (portions of Jackson and Jefferson Counties).
- 2018: Attainment for both.

Round 2: Consent Decree

- 2015-16: Three (3) areas considered. EPA did not designate any nonattainment areas
- All 3 placed in future rounds of designations

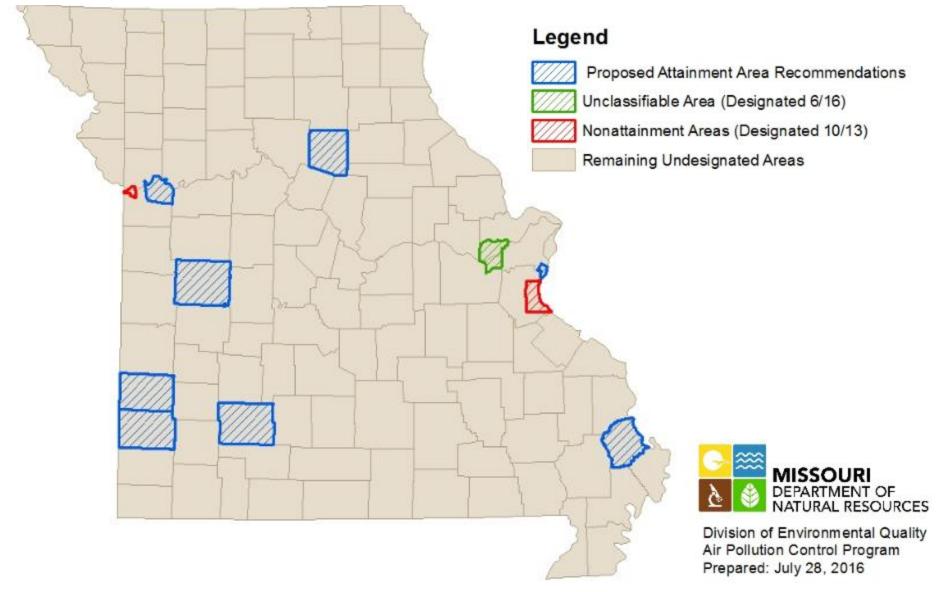
Round 3: Data Requirements Rule (Modeling)

- Dec 2016: Eight (8) counties/partial counties recommended for attainment
- ~Aug 2017: Expect 120-day letter
- Dec 2017: Deadline for EPA designations

Round 4: Data Requirements Rule (Monitoring)

- 4 areas installing new air quality monitors
- 2017-19: Collect air monitoring data
- May 2020: Recommendations due to EPA
- Dec 2020: Deadline for EPA designations

# 2010 1-hour SO<sub>2</sub> NAAQS: Existing and Recommended Area Classifications and Boundaries



80 Miles



# Webpage Resources and Updates



# Cross-State Air Pollution Rule Webpage



### Cross-State Air Pollution Rule

- New webpage for CSAPR Allocations!
  - Notifications of identified non-operating units and new unit set-asides
  - Opportunities to provide 'objections'
  - Etc.
- Wepage is live!
  - http://dnr.mo.gov/env/apcp/csapr.htm
     (also found in the list of "Featured Pages" on the main program webpage)

#### **Cross-State Air Pollution Rule (CSAPR)**

Droge

#### dnr.mo.gov/env/apcp/csapr.htm

#### Allocation Procedure for the Cross-State Air Pollution Rule

Missouri maintains state implementation plans (SIPs) that the EPA has approved to allow the state to reallocate emission allowances for the control periods starting in 2017. The allowances pertain to the CSAPR trading programs for  $NO_x$  annual and  $SO_2$  annual group 1. The allocation methods for these two programs are codified in state rules 10 CSR 10-6.372 and 10 CSR 10-6.376.

These rules require the department's Air Pollution Control Program to submit allowance allocations under these two programs every year to EPA. This webpage provides the required notifications and objection periods for the air program's allowance allocation submissions.

#### Procedures for Allocation of CSAPR NO<sub>x</sub> and SO<sub>2</sub> Annual Units

#### Allocation of Existing Units

- Public notification of identified non-operating units (Updated 2/24/17)
- Facilities can submit objections to units that the state lists as non-operating during the last two control periods. **Click here** by April 1, 2017, to submit objections.
- Public notification of state's response to objections for identified non-operating units (Updated 2/24/17)
- State submittal of existing unit allocations to EPA [2] (Updated 2/24/17)
- EPA records the state submitted existing unit allocations for future year(s).

#### Allocation of New Units

Air Po

Air Pro

Air Qu

Asbes

Clean

Forms

**Gatew** 

Laws

NAAO

Ozone

**Permi** 

Public

Public

**QAPP** 

Air Po

Assist

State

Vapor Comp

50



### **EPA Resources**



### **EPA Resources**

- You can find all Missouri approved rules and plans on EPA's webpage:
  - Rules: <u>www3.epa.gov/region07/air/rules-w3/missouri/toc.htm</u>
  - SIP Status Reports:
     www3.epa.gov/airquality/urbanair/sipstatus/reports/mo\_areabypoll.html

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#### Region 7 Air Program

Serving Iowa, Kansas, Missouri, Nebraska and 9 Tribal Nations

You are here: EPA Home " Region 7" Air Program " Federally Approved Regulations " Missouri

#### Missouri

#### **EPA Approved Missouri Regulations** 40 CFR 52.1320(c)

Missouri Department of Natural Resources **Division 10 - Air Conservation Commission** 

www3.epa.gov/region07/air/rulesw3/missouri/toc.htm

Chapter 1	Organization
Chapter 2	Air Quality Standards and Air Pollution Control Regulations for the Kansas City Metropolitan Area
Chapter 3	Air Pollution Control Regulations for the Outstate Missouri Area
Chapter 4	Air Qu  State, Local and Tribal Programs  Federally Approved Regulations  Policy & Guidance  Search Air Pages  About Region 7  A-Z Index  News & Events
	ality Standards and Air Pollution Control Regulations for the Springfield-Greene County Area
Chapter 5	Air Quality Standards and Air Pollution Control Regulations for the St. Louis Metropolitan Area
Chapter 6	Air Quality Standards, Definitions, Sampling and Reference Methods, and Air Pollution Control Regulations for the State of Missouri

#### Chapter 6 - Air Quality Standards and Air Pollution

Air Quality Standards, Definitions, Sampling and Reference Methods, and Air Pollution Control Regulations for the State of Missouri

			Approved Pursuant to			
Rule	Title		SIP	111(d)	112(l)	Title V
10 CSR 10-6.010	Ambient Air Quality Standards	3 pp, 34 KB	X			
10 CSR 10-6.020	Definitions and Common Reference Tables	132 pp, 367 KB	Х	Х		X
10 CSR 10-6.030	Sampling Methods for Air Pollution Sources	6 pp, 24 KB	Х			
10 CSR 10-6.040	Reference Methods	6 pp, 24 KB	X			
10 CSR 10-6.050	Start-Up, Shutdown, and Malfunction Conditions	5 pp, 22 KB	Х			
10 CSR 10-6.060	Construction Permits Required	45 pp, 123 KB	X			
10 CSR 10-6.061	Construction Permit Exemptions	15 pp, 43 KB	X			
10 CSR 10-6.062	Construction Permits By Rule	8 pp, 28 KB	X			
10 CSR 10-6.065	Operating Permits	62 pp, 132 KB	X		X	X
10 CSR 10-6.090	Restriction of Emission of Fluorides	2 pp, 16 KB		Х		54



# SIP Webpage Updates!



## Webpage Updates!!!

 Reminder: To get the full picture of SO<sub>2</sub>, you must visit a minimum of 4 DNR webpages.









Programs -

Forms and Permits

Publications

Laws and Regulations

Online Services

Calendar of Events

#### State Implementation Plan

There are six different criteria pollutants for which the U.S. Environmental Protection Agency (EPA) is required to set National Ambient Air Quality Standards (NAAQS). EPA is also required to review each national air standard every five years to determine if the current standard is still adequate to protect public health, or if it should be revised.

After EPA revises or sets a new standard for a criteria pollutant, the boundary designation process begins.

- 1. States submit boundary recommendations to EPA. The boundary designation submittals for all criteria pollutants are available online.
- 2. EPA reviews the recommendations and designates areas across the country as either nonattainment or attainment/unclassifiable based on air quality monitoring or modeling data.
- 3. If an area is designated as nonattainment for a certain NAAQS it means the area either is not meeting the standard or is significantly contributing to an area not meeting the standard.

After the boundary designations are complete the State Implementation Plan (SIP) begins.

- Missouri's SIP is a compilation of all rules, regulations and documents giving the state authority to implement, enforce, attain, maintain and demonstrate compliance for each standard as required under the Clean Air Act.
- 2. All SIPs are required to go through public comment periods and if adopted by the Missouri Air Conservation Commission, they are submitted to EPA for adoption in the federally approved SIP.

If EPA adopts the plan submission, the SIP becomes federally enforceable. A summary of Missouri's federally approved SIP is available on EPA's website and Missouri's approved SIP is also codified at 40 CFR 52 Subpart AA.

#### Types of SIPs

Every time a NAAQS is revised, the state is required to submit a SIP.

 Attainment/unclassifiable areas: The state is required to submit an infrastructure SIP that demonstrates the state's authority to implement and enforce the standard and demonstrate that compliance with the standard will continue to be maintained

**Program Home Page** 

Air Conservation Commission

**Air Pollutants** 

Air Program Advisory Forum

Air Quality

Ashestos

Clean Power Plan

Forms and Applications

**Gateway Vehicle Inspection Program** 

**Laws and Regulations** 

**NAAQS Boundary Designations** 

Ozone

Permits

**Publications and Reports** 

Public Notices-Comment Periods

**QAPP** Template

Air Pollution Compliance/Regulatory

Accietance

State Plans

Vapor Recovery Information and **Compliance Requirements** 

- Attainment/unclassifiable areas: The state is required to submit an infrastructure SIP that demonstrates the state's authority to implement and enforce the standard and demonstrate that compliance with the standard will continue to be maintained.
- Nonattainment areas: The state is required to submit several different documents as part of the SIP for these
  areas under each standard in which the area has been designated nonattainment. The scope of the different SIP
  submittals required for each nonattainment area depends on the severity of the nonattainment area and the
  pollutant for which the area has been designated nonattainment.
  - Nonattainment areas are usually required to submit an attainment demonstration SIP. This portion of the SIP lays out all of the control strategies required to demonstrate the nonattainment area will meet the new standard by a certain date, known as the attainment date.
  - Nonattainment area plans also typically require submission of a comprehensive emission inventory, a demonstration that reasonably available control measures have been implemented and a demonstration that reasonable further progress goals will be achieved. Finally, once an area that has been designated as a non-attainment area has monitored pollutant levels in compliance with the standard for an extended period, then the area can submit a maintenance plan and be redesignated to maintenance area. The maintenance plan must demonstrate how the area will continue to maintain compliance with the standard for 10 years after attainment has been reached.

This webpage shows the more recent SIPs submissions the state has made to EPA. Some submissions have been federally approved, while others are still pending EPA approval. SIP elements are revised from time to time and the more recent revisions to SIPs are also listed on this website.

Ozone | Paraculate Matter | Lead | Carbon Monoxide

Nitrogen Dioxide | Sulfur Dioxide | Degional Haze | Interstate Transport

Administrative | 1.1.(1) | An Quality Management Plan (AQMP)

#### **Ozone**

The first ozone NAAQS was published in 1979. The standard was based on one-hour average concentrations. In 1997, EPA revised the ozone NAAQS and the new standard was based on a design value stemming from 8-hour average concentrations. In 2008, EPA again revised the ozone standard. The 2008 standard is lower than the 1997 standard, but still based on a design value stemming from 8-hour average concentrations.

See Ozone for more information.

#### 2008 8-hr 03 Standard: 75 parts per billion, or ppb

On Sept. 22, 2011, the U.S. Environmental Protection Agency released a memorandum to clarify for states the status of the 2008 Ozone National Ambient Air Quality Standard. In this document, EPA explicitly stated that the current standard is 0.075 parts per million, or 75 parts per billion. This standard is based on a three year design value, which is calculated by taking the fourth highest daily high 8-hour average concentration recorded each year, for three years and averaging the three years together.

Compliance Requirements

#### **Contact Information**

#### **Air Pollution Control Program**

P.O. Box 176 Jefferson City, MO 65102 800-361-4827 573-751-4817

Contact Us

dnr.mo.gov/env/apcp/sips.htm

**Report an Environmental Concern** 

Meet the Air Pollution Control Program Director

#### Sulfur Dioxide, or SO<sub>2</sub>

Additional information is available on the department's **Sulfur Dioxide** webpage and on **EPA's Sulfur Dioxide Implementation** webpage.

#### 2010 Primary standard (1-hour average): 75 ppb.

In 2010, this standard was revised. The 2010 revision added a primary 1-hour SO<sub>2</sub> standard and revoked the primry annual and 24-hour SO<sub>2</sub> standards. Previous to the 2010 NAAQS revision, the entire state was designated as attainment or unclassifiable under the annual and 24-hour primary SO<sub>2</sub> standards. Under this revised standard, monitored pollutant concentrations are used to designate nonattainment and attainment areas for the initial round of designations. The state developed a revised boundary recommendation in April 2013, which can be found on the **NAAQS Boundary Designations** page. The 2010 SO<sub>2</sub> standard is based on a three year design value, which is calculated by taking the 99th percentile of the daily high 1-hour average concentrations recorded each year, for three years and averaging the three years together.

#### Infrastructure SIP

 Missouri State Implementation Plan Revision – Section 110 Infrastructure Requirements for the 2010 Sulfur Dioxide National Ambient Air Quality Standard (MACC Adoption: June 2013) (Pending EPA Approval)
 Section 110 Infrastructure SIP for the 2010 SO2 NAAOS

#### **Jefferson County Area**

 Nonattainment Area Plan for the 2010 1-Hour Sulfur Dioxide National Ambient Air Quality Standard – Jefferson County Sulfur Dioxide Nonattainment Area (MACC Adoption: May 2015) (Pending EPA Approval)

#### Jefferson County SO<sub>2</sub> Nonattainment Area Plan

Appendix A

Appendix B

Appendix C

Appendix D

Appendix E

Appendix F

Appendix G

Appendix H

Appendix n

Appendix I

Appendix J

dnr.mo.gov/env/apcp/sips.htm

The modeling performed in support of the Jefferson County Nonattainment Plan takes into account federally enforceable SO<sub>2</sub> emission reductions from the closure of the Doe Run Herculaneum primary lead smelter. The closure of the smelter was required by the consent decree between Doe Run, the department and the U.S. Environmental Protection Agency filed in the United States District Court in the Eastern District of Missouri, Case No. 4:10-cv-01895-JCH, and entered on Dec. 21, 2011. We are providing a link to this document for reference: http://www.epa.gov/region7/cleanup/doe run/pdf/consent decree.pdf

#### Clean Data Determination Modeling Documentation Clean Data Determination Supplement

Attachment 1

#### Jackson County Area

 Nonattainment Area Plan for the 2010 1-Hour Sulfur Dioxide National Ambient Air Quality Standard – Jackson County Sulfur Dioxide Nonattainment Area (MACC Adoption: August 2015) (Pending EPA Approval)

Jackson County SO<sub>2</sub> Nonattainment Area Plan

Appendix A

Appendix B

Appendix C

Appendix D

Appendix E

Appendix F

Appendix G

Appendix H

Appendix I

Appendix J

dnr.mo.gov/env/apcp/sips.htm

#### Secondary standard (3-hour average): 500 ppb.

On April 3, 2012, EPA promulgated a final rule to retain the current secondary standard for SO<sub>2</sub>. The entire state is currently designated as attainment or unclassifiable under this standard.

#### Regional Haze Plan

60

All states were required by the Clean Air Act to submit Regional Haze SIPs in order to address



# Webpage Updates—Why?

- Multiple webpages lead to duplicative—or in some cases missing or conflicting information.
- Encyclopedia-type information is an outdated format and difficult to scan for information.



### Our Plan: Update our webpage structure!

- Have a central informational webpage
  - What are SIPs? Boundary Recommendations?
    What is a nonattainment area?
- Links to the different pollutants
  - Each pollutant will have a one-stop shop of information
    - General pollutant information
    - Boundary recommendations
    - SIPs
    - Important links (air monitoring, EPA webpages, etc.)



## Example!

- We started with the SO<sub>2</sub> webpages.
- We'd like your feedback:
  - Content
  - Organization
- We hope to update all planning webpages in the near future.

MO.gov

Governor Eric R. Greitens

Find an Agency

Online Servi

Forms and Permits

Publications

Laws and Regulations

**Sulfur Dioxide** 

Programs -



Sulfur dioxide is a colorless gas with a strong, suffocating odor. Sources of sulfur dioxide emissions in the fossil-fuel fired power plants, metal/ore processing industries, other industries that combust fossil fuels, movertain nonroad engines such as locomotives and marine vessels. Exposure to elevated concentrations of sulfur dioxical can cause irritation of the throat and lungs, leading to difficulty breathing, increased asthma symptoms and other respiratory illnesses. The department monitors sulfur dioxide levels in the air at locations across the state. Missouri's sulfur dioxide air monitoring sites 🛂

Sulfur dioxide is one of the Environmental Protection Agency's criteria air pollutants – commonly found air pollutants that at high enough levels can harm people and the environment. Because of the potential to harm people and the environment, the federal Clean Air Act and Missouri Air Conservation Law limit the amount of sulfur dioxide that sources can emit into the atmosphere. Sulfur dioxide also contributes to the formation of secondary fine particle pollution, which is a subset of particulate matter, another criteria pollutant. Additional information about sulfur dioxide can be found on EPA's sulfur dioxide webpage.

#### Sulfur Dioxide National Ambient Air Quality Standard (NAAQS)

In June 2010, EPA established a new 1-hour primary sulfur dioxide standard of 75 parts-per-billion. The previous sulfur dioxide primary standards set in 1971 included a 24-hour standard at 140 parts-per-billion and annual standard at 30 parts-per-billion. There is also a secondary sulfur dioxide standard based on a 3-hour average set at 500 parts per billion. When EPA revised the sulfur dioxide standard in 2010, they revoked the two previous primary standards, replacing them with the new 1-hour primary standard and they retained the existing secondary standard

**Air Pollutan** Air Program **Air Quality** Asbestos **Clean Powe** Forms and A

**Program Ho** 

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Permits

Ozone

**Publications** 

**Public Notic** 

**QAPP Temp** 

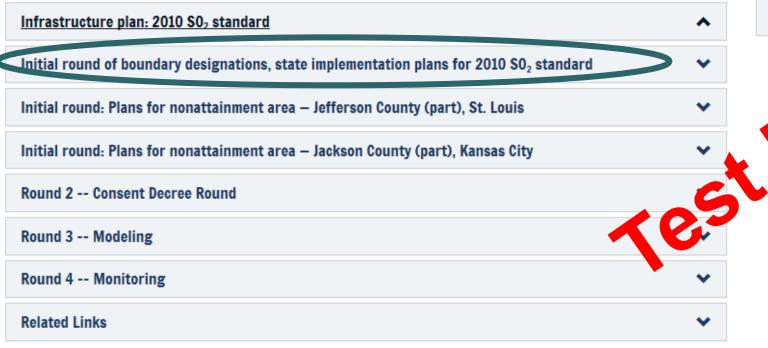
Air Pollution Assistance<sub>6</sub>

#### 2010 1-hr SO<sub>2</sub> Primary Standard: 75 ppb

When EPA revises a NAAQS, states are allowed to submit boundary designation recommendations to EPA to be considered when EPA establishes the final boundary designations. For most criteria pollutants, states are given one year following a NAAQS revision to submit their recommendations and EPA finalizes boundary designations within two years of the NAAQS revision.

The EPA has chosen a different approach to establish boundary designations under the 2010 sulfur dioxide standard. Unlike other criteria pollutants, sulfur dioxide is almost exclusively a point source-emitted pollutant. Additionally, transport of sulfur dioxide emissions is typically more localized and is less likely to be observed on a regional scale. A monitoring network large enough to adequately cover all large sources would be prohibitively expensive and an affordable network would leave large gaps in coverage. Therefore, EPA has decided to use a hybrid monitoring-modeling approach for sulfur dioxide. Additionally, EPA is splitting the boundary designation process into multiple rounds. The initial round for boundary designations was based on available ambient air quality monitoring data. Additional rounds of designations are based on a hybrid approach involving emissions inventory analysis, an enhanced monitoring network and extensive use of refined air dispersion modeling. https://www.epa.gov/sulfur-dioxide-designations

As the state develops new boundary designation recommendations and state implementation plans, they will be made available for public review and comment online at the Air Program's **Public Notice webpage**.



Vapor Recovery Information
Compliance Requirements

#### **Contact Information**

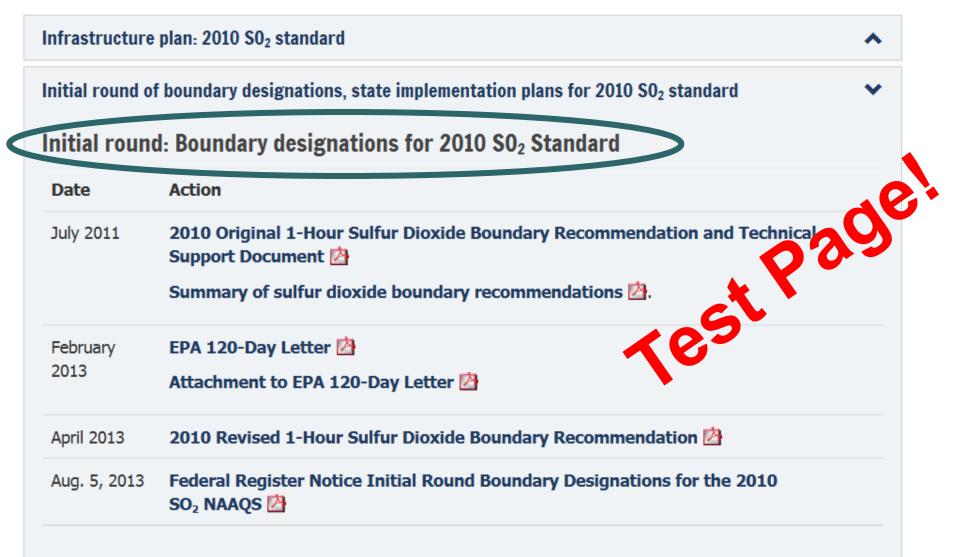
Air Pollution Control Progr P.O. Box 176 Jefferson City, MO 65102 800-361-4827 573-751-4817

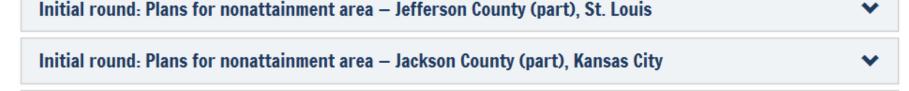
Contact Us

Report an Environmental (

Meet the Air Pollution Cont Director







Round 2 -- Consent Decree Round



# We want your feedback!

- Focus
- Format
- Anything else you would like to share

darcy.bybee@dnr.mo.gov (or see me--l'll be here all day!)



# Compliance Enforcement Updates

Richard Swartz

Air Pollution Control Program



## Compliance Assistance

- We are always happy to assist
- Always happy to discuss a rule interpretation
- Always happy to discuss the nuances of your permit
- Always happy to help you move toward compliance



# Compliance Assistance Visits <a href="http://dnr.mo.gov/cav/compliance.htm">http://dnr.mo.gov/cav/compliance.htm</a>





### Small Business Assistance – Air Program

http://dnr.mo.gov/env/apcp/smbus.htm#assistance

### Department of Natural Resources

Air Pollution Control Program

P.O. Box 176

Jefferson City, MO 65102

573-751-4817 Phone

800-361-4827 Phone

573-751-2706 Phone

Carlton Flowers



### Enforcement

- Fewer Notices of Violation (NOVs)
- More Letters of Warning (LOWs)
- Discontinue Notices of Excess Emissions (NOEEs)
- Start up, Shut down, Malfunction justification still accepted per the state rule



### Compliance Unit

Compliance Reports – Total 1,892 Last Year

- Annual Compliance Certifications 384
- Semi-Annual Compliance 214
- MACT & NSPS 1,294
- Coordinate with regional office staff regarding inspections
- Coordinate variances

Russell S.			Derek A.			Heather L.			Cliff J.			Ernest W.			Jaime R.		
Subpart	Name	#	Subpart	Name	#	Subpart	Name	#	Subpart	Name	#	Subpart	Name	#	Subpart	Name	#
NSPS F	Portland Cement Plants	3	Commercial Solid Waste Incinerators Operator Training			Odors			Particulate Matter			EIQ Checklist			Printing Electronic Submittals from R/O's		
NSPS HH	Lime Manufacturing	2	Wastewater Treatment Sludge Incinerators Operator Training		111OP database			NESH Equipment Leaks (Fugitive Emission Sources)		Major Source Boiler MACT			NSPS Hospital/Medical/Infectious Waste Incinerators Commencing After 6/20/96				
<u>N</u>	Chromium Electroplating	29	NSPS Cc	Municipal Sold Waste Landfills	5	NSPS <u>I</u>	Hot Mix Asphalt Facilities	71	NSPS L	Secondary Lead Smelters	2	NESH AP H	Radionuclides Other Than Radon From Department of Energy Facilities	1	NSPS S	Primary Aluminum Reduction Plants	1
<u>2X</u>	Ethylene M anufacturing Process Units: Heat Exchange Systems and Waste Operations	1	NSPS O	Sewage Treatment Plants	4	NSPS X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	1	NSPS R	Primary Lead Smelters	1	NSPS D	Fossil-Fuel-Fired Steam Generators Commencing After 8/17/71	5	NSPS IIII	Stationary Compression Ignition (Diesel) Internal Combustion Engines	79
<u>3E</u>	All Hazardous Waste Incinerators	6	NSPS CC	Glass Manufacturing Plants	2	NSPS DD	Grain Elevators	10	NSPS EE	Surface Coating of Metal Furniture	1	NSPS Da	Electric Utility Steam Generating Units Commencing After 9/18/78	5	NSPS JJJJ	Standards of Performance For Stationary Spark Ignition Internal Combustion Engines	?
<u>3I</u>	Flexible Polyurethane Foam Production	1	NSPS KK	Lead-Acid Battery Manufacturing Plants	4	NSPS UU	Asphalt Processing and Asphalt Roofing Manufacture	5	NSPS MM	Automobile And Light Duty Truck Surface Coating Operations	2	NSPS Db	Industrial-Commercial- Institutional Steam Generating Units	16	NSPS KKK K	Stationary Combustion Turbines	8
<u>3L</u>	Portland Cement Plants	5	NSPS WWW	Municipal Sold Waste Landfills	28	NSPS VVa	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry Commencing After 11/7/06	7	NSPS RR	Pressure Sensitive Tape and Label Surface Coating Operations	1	NSPS- Dc	Small Industrial-Commercial- Institutional Steam Generating Units	186	<u>o</u>	Ethylene Oxide Sterilizers	1
<u>3M</u>	Pesticide Active Ingredient Production	1	NSPS CCCC	Commercial and Industrial Solid Waste Incineration Units Commencing After 11/30/99	5	NSPS NNN	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Distillation Operations	9	NSPS SS	Industrial Surface Coating of Large Appliances	2	NSPS Y	Coal Preparation Plants	18	<u>2D</u>	Off-Site Waste and Recovery Operations	5
<u>5A</u>	Lime Manufacturing	2	NSPS DDDD	Commercial and Industrial Solid Waste Incineration Units Commencing before 11/30/99	1	NSPS 000	OOO Test Observations	279	NSPS TT	Metal Coil Surface Coating	1	NSPS GG	Stationary Gas Turbines	31	<u>2L</u>	Primary Aluminum Reduction Plants	1
<u>5G</u>	Site Remediation	1	NSPS MMM M	Sewage Sludge Incinerators	4	NSPS RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Reactor Process	10	NSPS WW	Beverage Can Surface Coating Industry	1	NSPS JJJ	Petroleum Dry Cleaners	5	<u>3C</u>	Wastewater Steel Pickling	1
			<u>2I</u>	Shipbuilding and Ship Repair	1	NSPS UUU	Calciners and Dryers in Mineral Industries	7	NSPS VVV	Polymoric Coating of Supporting Substrates	2	<u>M</u>	PERC Standards for Dry Cleaners	274	<u>3G</u>	Pharmaceutical Manufacturing	5
			<u>2G</u>	Aerospace Mfg. & Rework	4	F	Synthetic Hazardous Organics	1	<u>T</u>	Halogenated Solvent Cleaning	13	<u>2J</u>	Wood Furniture	11	<u>3R</u>	Secondary Aluminum Production	12
			<u>2K</u>	Printing and Publishing	4	<u>G</u>	Storage of Hazardous Organics	2	<u>X</u>	Secondary Lead Smelters	2	<u>4D</u>	Plywood and Composite Wood Products	1	<u>4Y</u>	Combustion Turbines	11
			<u>3J</u>	Group IV Polymers and Resins	1	<u>H</u>	Equipment Leaks of Hazardous Organics	5	<u>3T</u>	Primary Lead Smelters	1	<u>5D</u>	Industrial/Commercial/Institutio nal Boilers & Process Heater	86	<u>4Z</u>	RICE	186
			<u>4A</u>	Municipal Sold Waste Landfills	18	Ī	Organic Hazardous Air Pollutants for certain processes subject to the negotiated regulations for equipment leaks	2	<u>4I</u>	Surface Coating of Auto and Light Duty Trucks	2	<u>5H</u>	Miscellaneous Coating Manufacturing Facilities	3	<u>5E</u>	Iron and Steel Foundries	1
			<u>4E</u>	Organic Liquids Distribution (non-Gasoline)	2	<u>4F</u>	Miscellaneous Organic Chemical Manufacturing (MON)	10	<u>4J</u>	NESHAP for Paper & other Web Surface Coatings	3	<u>5U</u>	MATS	?	<u>5J</u>	Brick and Structural Clay Products	1
			<u>4G</u>	Solvent Vegetable Oil Extraction	5	<u>4P</u>	Plastic Parts Surface Coating	3	<u>4K</u>	Metal Can Coating	1				<u>5P</u>	Engine Test Cells/Stands	1
			<u>5M</u>	Flexible Polyurethane Foam Fabrication Operations	1	<u>4V</u>	New and Existing Boat Manufacturing Facilities	6	<u>4M</u>	Misc. Metal Parts and Products Surface Coating Operations	21						
						<u>4W</u>	Reinforced Plastic Composites Production	8	<u>4N</u>	Surface Coating of Large Appliances	2						
	_			_					<u>40</u>	Printing, Coating and Dyeing of Fabrics and Other Textiles	1		_			_	
									<u>4Q</u>	Surface Coating of Wood Building Products	1						
									<u>4R</u>	Surface Coating of Metal Furniture	2						
									<u>4S</u>	Metal Coil	1						1



## Area Sources – Who has Authority?

- Some federal rules DNR does not have enforcement authority
- These rules still show up in your permit
- It can get confusing
- Web site clarifies authority
- http://dnr.mo.gov/env/apcp/areasource.htm
- Questions? Call us! (573) 751-4817



### Gateway Vehicle Inspection Program

- Joint safety & emissions testing program in St. Louis metro area
- Partnership with Highway Patrol
  - Coordination with Department of Revenue
- ~750,000 vehicle inspections per year
- 850 licensed inspection stations
- 4,700 licensed inspectors



### Gateway Vehicle Inspection Program

- Opus Inspection Current Contractor
- World Wide Environmental Products New Contractor
- Transitioning This Spring



### Stack Test Oversight

- Receive & review test protocols
- Observe emissions test
- Review test reports received 327 reports in 2016
- CEMS audits 4 in 2016
- stacktesting@dnr.mo.gov



#### **Asbestos Unit**

- New fees January 1, 2017
- Streamlined internal processes
- Applications modified more user friendly
- Audit paper work modified more user friendly for auditor and training provider
- Compliance Assistance
- AsbestosNotifications@dnr.mo.gov



# Thank you! richard.swartz@dnr.mgov



### Permit Updates

Kendall Hale
Air Pollution Control Program



### **Operating Permit Focus**

- Timely completeness reviews
- Regular correspondence with applicant
- Streamlined internal review process
- Revised application forms
- Instructions/guidance on website



### Areas of Emphasis for Operating Permits

- Improved record keeping pages
- Compliance plans when necessary in order to process the application in a timely manner
- Statement of Basis
  - Explanation of rule applicability
  - Potential emissions calculations
  - History of installation, including name changes
  - Is the installation considered a Named Installation
  - Dates of relevant stack testing
  - Any other pertinent information



### Basic Operating Permit Changes

- No longer required simply due to the existence of an incinerator
- In the process of changing the requirement for a Basic Operating Permit due to the applicability of a New Source Performance Standard (NSPS) or Maximum Achievable Control Technology (MACT)
- Streamlining the application process



# Streamlined Basic Operating Permit Process

- Application will be in the form of an excel workbook.
- The workbook will be pre-populated with data from MoEIS and e-mailed to the company.
- Company will update emission unit list, fill in any missing data, and submit the application electronically.
- Air Program will review the application, update MoEIS, and add applicable regulations to a database.
- Final permit will be e-mailed to company.
- A more detailed presentation and discussion will occur at the next Air Forum meeting.

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# Basic Operating Permits What is their Purpose?

- Provides one reference document of applicable regulations for companies and inspectors.
- Allows the Air Program an opportunity to update emission unit lists and possible missing MoEIS data.
- Applicable rules database will allow the Air Program to better identify and communicate with companies affected by new or revised regulations.



# EPA's Proposed Revision to the Petition Provisions of the Title V Permitting Program

- Specifies the content and format of a Title V petition
- Provides direction as to how to submit a petition
- Requires written responses to public comments be provided to EPA with the draft Title V permit
- Provides guidance on recommended practices for permitting authorities to ensure complete administrative records and notice to the public when EPA's 45 day review period beings



### Construction Permit Focus

- Improved application forms
- Changes to review process for construction industry (rock crushers, concrete batch plants, and asphalt plants)
- Size of interactive inventories used when conducting an air quality analysis
- Default release parameters used when conducting an air quality analysis



# When is Modeling Required for a Construction Permit?

- If potential emissions are below or limited to the respective de minimis level, then no air quality analysis is required.
- If potential emissions are above the de minimis level, then an air quality analysis is required. A screening analysis is allowed if appropriate.
- Specifically for PM and SO<sub>2</sub>, a refined air quality analysis is required if potential emissions are greater than 50 tons/year.



### Hazardous Air Pollutant (HAP) Modeling

- Required if the potential emissions are greater than the Screen Modeling Action Level (SMAL)
- Can request a limit to less than the SMAL level and avoid modeling
- Results of modeling compared to the Risk Assessment Level (RAL)
- If there is an applicable MACT standard and the MACT has undergone a residual risk analysis, then no modeling is required



## Helpful Permitting Links

- Air Pollution Control Program's Permit Webpage: <a href="http://dnr.mo.gov/env/apcp/permits.htm">http://dnr.mo.gov/env/apcp/permits.htm</a>
  - Operating and Construction Permit Fees
  - Permits on public notice
  - Issued permits
  - Construction Permit Guidance
  - Permit Modeling Guidance
  - Operating Permit Guidance (coming)
- SMAL and RAL for hazardous air pollutants <a href="http://dnr.mo.gov/env/apcp/docs/haps-table-rev-12.pdf">http://dnr.mo.gov/env/apcp/docs/haps-table-rev-12.pdf</a>



### **Contact Information**

- Kendall Hale, Permit Section Chief kendall.hale@dnr.mo.gov
- Susie Heckenkamp, NSR Unit Chief susan.heckenkamp@dnr.mo.gov
- Mike Stansfield, Operating Permit Unit Chief <u>michael.stansfield@dnr.mo.gov</u>
- Permit Section Phone Number 573-526-3835



## Other Air Program Reminders



### How To Stay Informed

Public notices – rules, permits, state plans:

http://dnr.mo.gov/env/apcp/public-notices.htm

Air Program Advisory Forum:

http://dnr.mo.gov/env/apcp/airadvisory/apcpstakeholder.htm





### Air Program Contact Information

Air Program's web page:

http://www.dnr.mo.gov/env/apcp/index.html

firstname.lastname@dnr.mo.gov

Front Desk (573) 751-4817



Kyra L. Moore, Director MDNR Air Pollution Control Program 1659 E. Elm Street Jefferson City, MO 65102 (573) 751-7840 (573) 751-0303 direct line kyra.moore@dnr.mo.gov



Division of Environmental Quality Acting Director: Steven Feeler

Date: March 2, 2017

Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.