Citizen's Petition to EPA to Remove St. Louis Mo non-attainment area and replace with a MO SIP program

A GREEN GREEN proposal!

Currently the St. Louis Ozone non-Attainment area is an Opt-in area as shown at https://modnr.maps.arcgis.com/apps/webappviewer/index.html?id=d5ce711960744f74abe421312915d075 and a snip-it of this is shown in Figure 1.

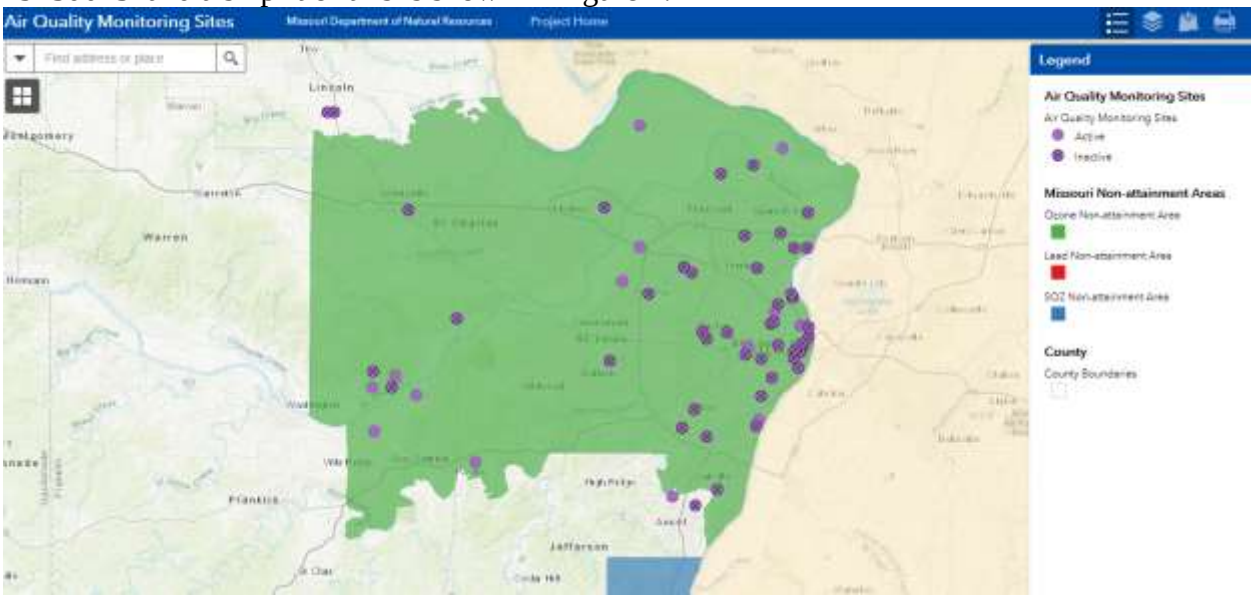

Figure 1 – St. Louis region Ozone non-attainment area. St. Louis City, St. Louis County, St. Charles County and a portion of Franklin County.

The non-attainment area includes a population of approximately 1.7 million. This does not include surrounding areas and Illinois.

History

On July 13, 1998, EPA received a letter from Governor Carnahan of Missouri officially requesting that the St. Louis area be included in the federal reformulated gasoline program, and Since June1, 1999. This region has been under the Federal RFG [Re- Formulated Gas] rules.
https://www3.epa.gov/otaq/fuels1/gasolinefuels/rfg/regulations.htm#opt
Another great historical doc
https://www.govinfo.gov/content/pkg/FR-1999-03-03/pdf/99-5233.pdf
THIS based on Ozone level between 1987 and 1989, so fuel and emission technology prior to 1990. LOTS HAVE CHANGED!

One of the biggest changes is the reduction in sulfur content in gas and diesel fuels, which is set by the EPA at 10 PPM [parts per million] used to be 100's of PPM. This really messed up Catalytic converts which burns un-burned fuel [VOC's].
http://www.meca.org/galleries/files/sulfur.pdf.

In May 2012, EPA removed the requirement to have vapor [VOC's] recovering rubber boot on gas pump handles. Because EPA says the vapor-capturing fuel pumps are redundant because more than 70% of all cars on the road today are equipped with on-board systems that capture the harmful vapors.

Also there is no longer a requirement for oxygenators in RFG. As of May 6, 2006 , the EPA removed the oxygen content standard. This was the reason for ethanol was added, due to the low cost and safety. Remember MTBE? https://archive.epa.gov/mtbe/web/html/water.html

The only rule that seems to apply is the Reid Vapor Pressure [RVP] which the Missouri Weights and measures [AG Dept. and Mo DNR already inforce]

So why we still under a non-containment RFG area? This is a question that I keep asking. And why can't Missouri just inforce a SIP program in the St. Louis Non-Attainment area and opt out of the FEDERAL RFG. There is basically no difference! The ONLY difference is a law on the books.

What this means for St. Louisans

There can be **NO** conventional gas of any kind [even high octane level] can be sold in the non-attainment area. So at the time [circa 1998] the only negative comments were about supply and commercial availability of RFQ gas and supplying different types of gas because IL gas stations which are in the same geographic area has the Reid vapor Pressure [RVP] standard etc. Bottom line the MO Gov. Carnahan requested to opted in. *"EPA received an application July 13, 1998 from the Honorable Mel Carnahan, Governor of the State of Missouri, for the St. Louis moderate ozone nonattainment area to be included in the reformulated gasoline program. The Governor requested an implementation date of June 1, 1999." SO HONORABLE MO GOVERNOR, MICHAEL PARSON SHOULD BE ABLE TO OPT OUT!*

Unintended consequences OF Opt-in, RFG, and Ethanol in Gas

Many cars [older and carburetor type fuel systems], motorcycles, marine outboard motors, aircraft, and a whole host of small engines [weed eater, snow blowers, leaf blowers, lawnmowers, generators, and gas engine powered tools] have engines that run worse, or have parts that deteriorate and fail, when run on gasoline that contains ethanol. In addition, ethanol leaves residue on valves and other parts that can hinder performance of the engines.

Ethanol is BAD for small engine

Just type in this in google search engine **"What percentages of small engine problems is caused by ethanol in gas?"** one get 4,600,600 hits! Everywhere and everyone knows that ethanol in gas is BAD. I have interviewed small engine repair shops. Asked the question to a person working is a St. Charles city small engine service shop.

- How long is ethanol gas good for? **30 DAYS!**
- What percentages of small engine problems are caused by ethanol in fuel? **90%!!!**

Quote *"We had 24 snow blowers repairs come through the shop before the big snow storm [Jan 2019] and **ALL** 24 were carburetor problems related to long term storage AND Ethanol in fuel!"*

Currently St. Louisans are at the mercy of the outdated and harmful regulations.

This is a RED RED RED regulation

It is an environment hazard, safety hazard and it an economic hazard for St. Louisans. Probably millions of dollars in fuel additives and fuel stabilizers, repairs, replacements, travel expenses [driving to the nearest Pure gas station], and of course TIME!

Environmental- RED Zone

The purpose of the 1990 clean air act to the clean up the air, i.e. reducing ozone causing gases. i.e VOC's [volatile organic compounds GAS is a VOC!]. Most of this has been achieved has been achieved due to elimination of sulfur in gas, fuel injection, and built in vapor recovery systems and much better emissions technology on cars. It is 20 years latter!

What do people due with BAD gas?

People are told, *"Don't fire up your lawnmower for the first time without getting fresh gas and dumping out any gas left in the fuel tank." Do not put E10 gas in your outboard!, and on and on.*

What do folks do with all this bad gas?

The informed folks with time and take it to a hazardous waste center for proper disposal. This is a very small percentage because of time, distance and lack of knowledge that such facilities exist. [I talked to St. Charles hazardous waste facility person and they accept bad gas May through September and this is about 500 – 800 gallons. So I estimate that this is less 1% so where is the 50,000 – 80,000 PLUS! gallons of gas going? People are dumping it!, setting out to evaporate [VOC's anyone!]. If you type this into a search engine, [*What do I do with the bad gas?]*, one get advise like *[Take a bucket of kitty litter and dump the gas in there. it will eventually evaporate. OR take to the country and burn it* [TALK ABOUT DANGEROUS!]. So the whole RFG regulation i.e. ethanol in fuel is forcing people to add tons of GAS evaporates to the atmosphere totally defeating the goal of the clean air standard. *[Remember the gas pump boot? above]* This is in addition to the other negative environmental effects

- Fuel additives and stabilizer introduces and their disposal of their containers
- Pollution due to driving to get pure gas [See Figure 2]
- Extra trash, rags
- Bulk trash such as bad lawnmowers, weed eater etc
- Bad carburetors leading to excess emissions over optimum

SAFETY – RED Zone

Think about all the gas being stored in garages that people do not use. HUGE fire hazard!

ALSO
Emergency gas engine power not being available. For example, generators or snow blowers that will not start due to bad carburetors possibly leading to negative health effects and even death [heart attack]. Boat motors stopping in the middle of the river [I heard this a lot!]

Economic RED Zone

Think of how many millions of dollars it is cost St. Louisans in repairs, parts, new equipment, fuel additives, fuel stabilizers, fuel cost to drive to the nearest station and time. A map, shown in Figure 2, shows the nearest gas stations selling conventional 91 octane + gas [source Pure-gas.com]. There are ***only*** 4 gas stations surrounding St. Louis outside the non-attainment area. If one takes the center of population to be I-64 and I-270 the closest station is ~40 miles ONE WAY!

I one looks at a comparison map of Kansas City MO and Kansas City, KS [Figure 3- source pure-gas.com], one can see that there are over 50 gas stations that sell 91+ octane conventional gas.
In addition, if one looks at the state map there is a large concentration of conventional gas stations around the lakes [Lake of Ozarks] because it is well know that ethanol cause all kinds of problems for outboards and the exemption contained in the January 1, 2008, Missouri Renewable Fuel Standard [Section 414.255, RSMo] specifically exempts marina, HELLO!

NOTE: St. Charles County has over 26 marinas on the south shore and not a drop of conventional gas. This is unfair and costly to St. Louis city, St. Louis County and St. Charles county boat owners.

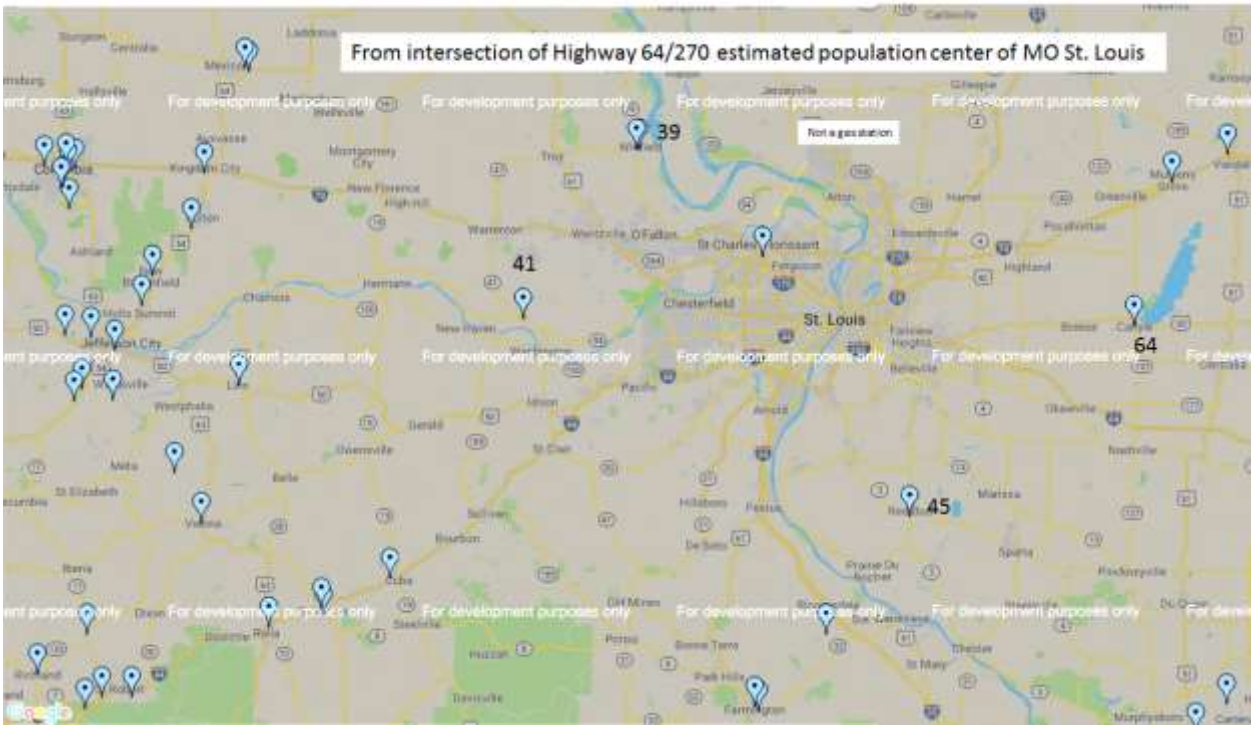

Figure 2 – Location of closest gas stations [miles to listed] around the St. Louis non-attainment area that can sell ethanol fee 91 + octane conventional gas.

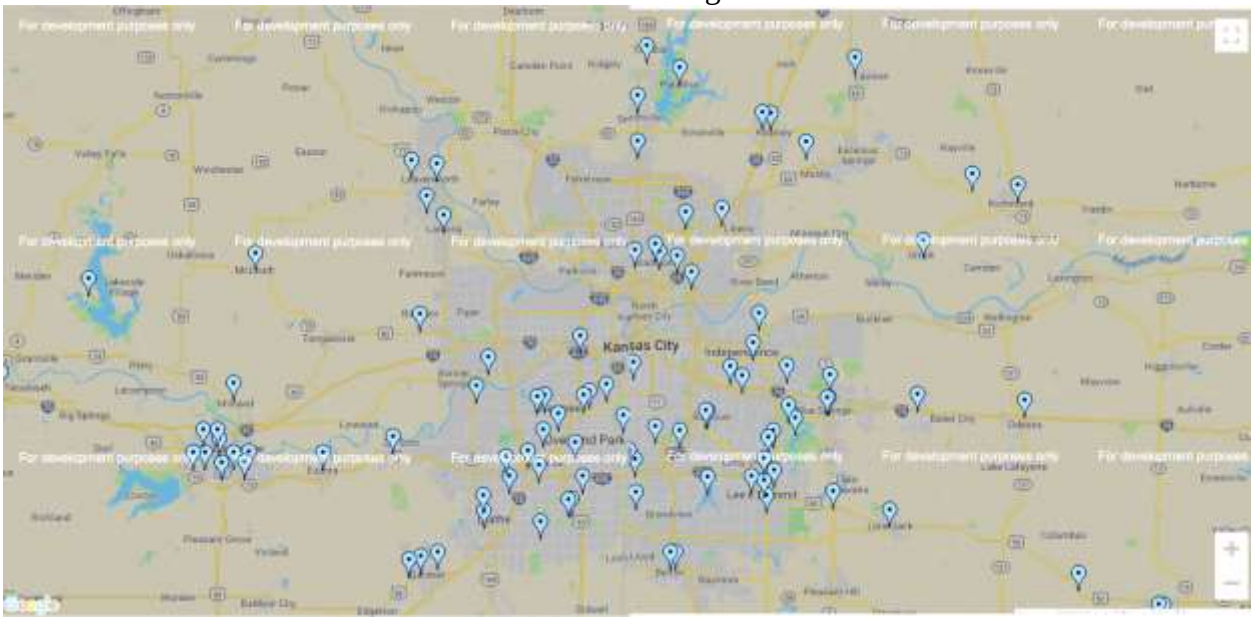

Figure 3 – Locations of Pure gas station in Kansas City metro area

Why the Difference

Kansas city, MO falls under the MO SIP [State Implementation Plan] program and St. Louis falls under the EPA non-attainment area. These two cities have basically the same populations.

LETS TALK DATA

Being an Engineer with a masters in Electrical Engineering I think like a scientist. Bottom line DATA can be manipulated, sensors can be manipulated, and above all MODELS can be manipulated. The data can be found at https://dnr.mo.gov/env/apcp/docs/ozonemonitordata.pdf. The MO Air quality monitoring sites can be found https://modnr.maps.arcgis.com/apps/webappviewer/index.html?id=d5ce711960744f74abe421312915d075
Let's talk about the EPA.

> *In March 2008, EPA strengthened the ozone NAAQS by setting it at a level of 0.075 parts per million (ppm) measured over 8 hours. Based on 2008-2010 monitoring data, the department recommended the St. Louis area as the only nonattainment area in the state with a boundary encompassing St. Louis City and St. Louis, St. Charles, Jefferson, and Franklin Counties. In April 2012, the EPA finalized St. Louis as a nonattainment area for the 2008 ozone standard. In April 2016, EPA determined that the area has until July 20, 2016 to attain the standard. Missouri is working on plans so that EPA can formally redesignate the remaining nonattainment area back to attainment.*
> *In October 2015 (effective in December 2015), EPA further strengthened the ozone NAAQS by setting it at a level of 0.070 ppm measured over 8 hours. Based on 2015 to*

2017 monitoring data, only the West Alton site in the St. Louis area exceeds the standard. On April 30, 2018, EPA designated the City of St. Louis, St. Charles County, St. Louis County, and a portion of Franklin County (Boles Township) in Missouri as nonattainment for the 2015 ozone NAAQS. Jefferson County and the remainder of Franklin County were not included in the nonattainment area for the 2015 NAAQS.

So what is interesting here is that the EPA just arbitrarily lowered the ozone from 0.075 ppm [parts per million] to 0.070 ppm. **Why?**

I like to look at data especially data that is in correlation with geography. So if one looks at the data. St. Louis has the highest numbers and within and outside the non-attainment area. But what is this? If one looks at Figure 4, which shows the *Active* air monitoring stations, two of them are right on the south west boundary and even right outside the boundary of the non-attainment area, specifically Pacific and Arnold West.

St. Louis		2014	2015	2016	2017	2018[cd]	CV - 70	2018[c]	14-16	15-17	16-18[c]
Arnold West	Jefferson	72	69	70	66	71	77	4	70	68	69
Blair Street*	St. Louis City	66	63	68	68	77	77	10	65	66	71
Foley West^	Lincoln	67	65	65	66	68	82	3	65	65	66
Maryland Heights	St. Louis	72	69	73	67	70	73	3	71	69	70
Orchard Farm	St. Charles	72	66	76	68	72	69	6	71	70	72
Pacific	St. Louis	65	65	67	62	71	84	5	65	64	66
West Alton	St. Charles	72	70	75	72	75	66	5	72	72	74

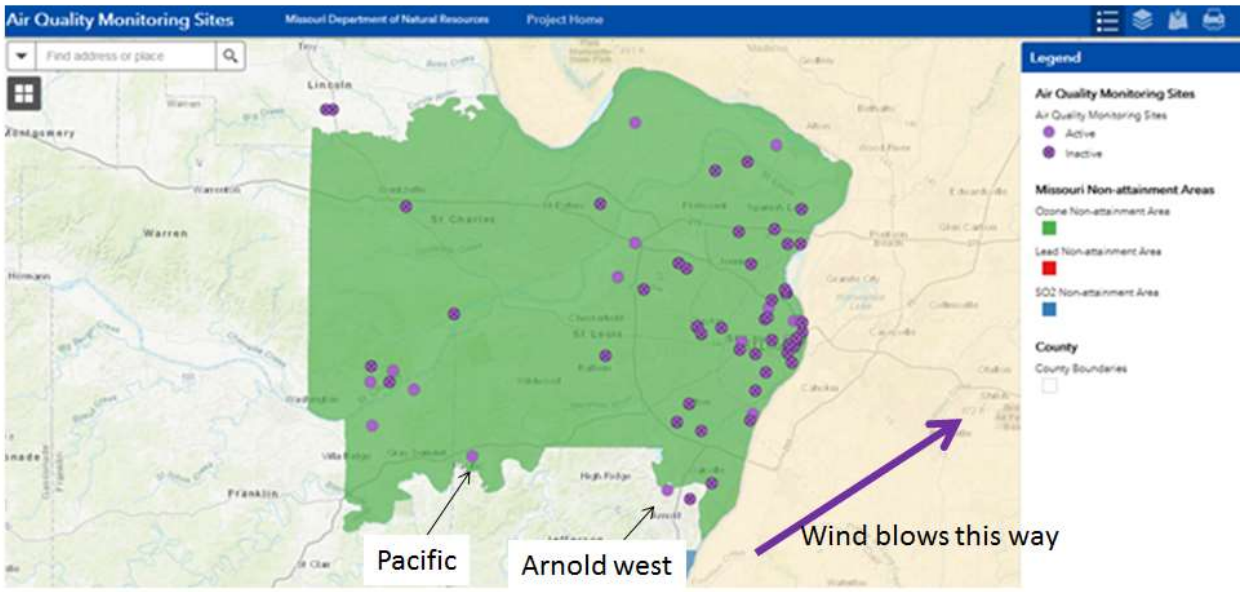

Figure 4 – Air quality data of Ozone correlating to STL. Non-attainment area

So Pacific and Arnold West have 10 violations out of 36 for 2018. How is this related to vehicular caused ozone? When the wind blows preferentially from the southwest? More on this below.

Kansas City Area

So let's look at the Kansas City area, a Missouri SIP [State In forced Program]. See Figure 5.

So the air monitoring showing the highest ozone readings are outside Jackson County downwind from KC. This makes sense, since this is similar to West Alton around St. Louis, to the north east [downwind] of the metro area.

Kansas City											
Liberty	Clay	65	62	66	69	74	78	7	64	65	69
RG South	Cass	65	65	61	63	66	89	0	63	63	63
Rocky Creek	Clay	66	68	69	70	72	74	4	67	69	70
Trimble	Clinton	64	68	69	66	69	78	2	67	67	68
Watkins Mill	Clay	67	64	66	69	72	78	5	65	66	69

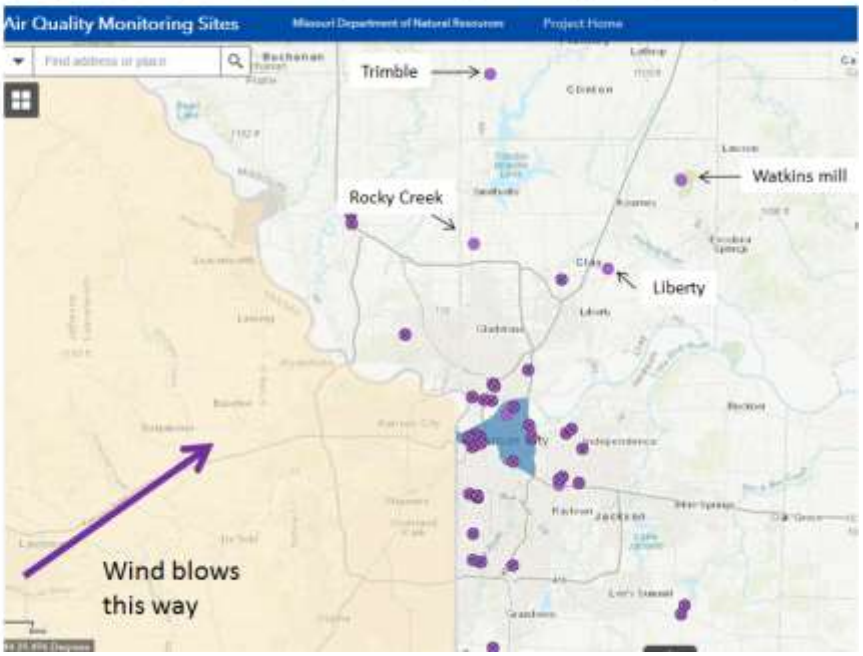

Figure 5 – Kansas City area Air Monitoring stations.

So why are Pacific and Arnold west read high in the STL area and they are should be low. Well it is the arbitrary setting by the EPA of 0.070 ppm. Question: What is the ozone level in the middle of "nowhere"? Let's look at El Dorado Springs in Cedar County, MO. See Figure 6. This 20 miles off the Kansas /Missouri border, no major cities upwind.

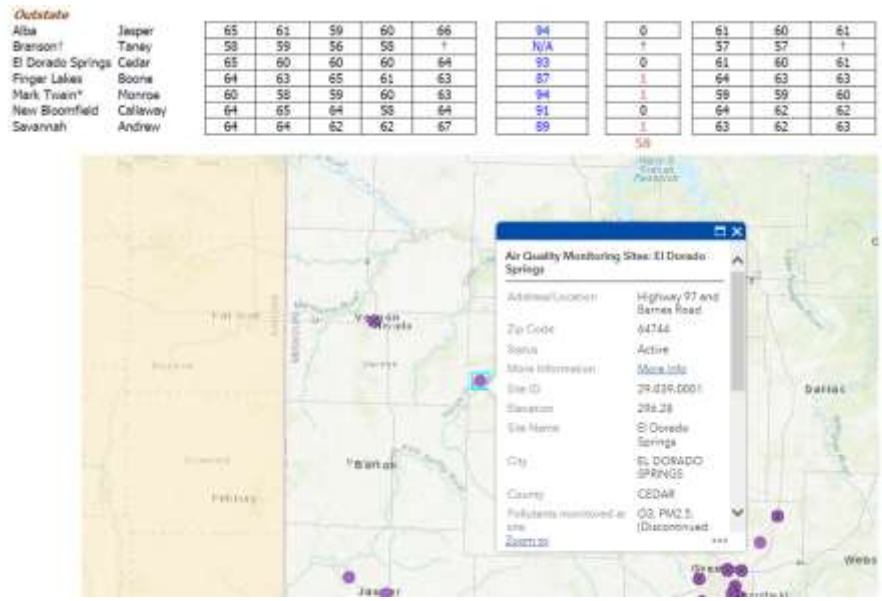

Figure 6 – El Dorado Springs air monitoring station and DATA.

So what we see there are no violations but the average is 62 PPM. This is only 8 ppm away from a violation. So what is causing this? In fact the average of all the outstate data year to date [It is right there] is 64.5 ppm. Only 5.5 ppm away from violating the 2015 mandate and this is with 3 exceedances! Are we are going to fine Mother Nature! The average for all sites in the STL non-attainment area is 72 ppm. Questions: What is the error bar for these sensors? How are they calibrated? Are we cost our Missouri citizens millions of dollars for freaking 8 ppm? This is crazy.

Again, why did the EPA lower the standard to 70 ppm? Why not lower the 65 ppm and the whole state will be in violation! It is well known that trees and plants emit VOC's.

An Environmentally GREEN and a monetary GREEN proposal!

Following the standard set by EPA to get out of this RFG non-attainment. {See Appendix A}
Please see the federal RFG requirements in 40 CFR 80 Subpart D [§80.40 through §80.89] of the following
https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr80_main_02.tpl
Please see §80.72 (of same page- see below) for Opt-out procedures (which are paired with revision of the St. Louis Ozone State Implementation Plan and Anti-backsliding Demonstration requirements).

MO DNR has informed me of a process that is long a cumbersome. Also the DNR person said their may be highway dollars tied to this. I like to understand what this process is. Like a flow chart, Gantt chart, excel spread sheet etc.

Opt out – Governor Parsons has to sign.
Replace with a SIP program similar to Kansas City.

Citizen's petition Let's Go GREEN!

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Appendix A
§80.72 Procedures for opting out of the covered areas.

(a) In accordance with paragraph (b) of this section, the Administrator may approve a petition from a state asking for removal of any opt-in area, or portion of an opt-in area, from inclusion as a covered area under §80.70. If the Administrator approves a petition, he or she shall set an effective date as provided in paragraph (c) of this section. The Administrator shall notify the state in writing of the Agency's action on the petition and the effective date of the removal when the petition is approved.

(b) To be approved under paragraph (a) of this section, a petition must be signed by the Governor of a State, or his or her authorized representative, and must include the following:

(1) A geographic description of each opt-in area, or portion of each opt-in area, which is covered by the petition;

(2) A description of all ways in which reformulated gasoline is relied upon as a control measure in any approved State or local implementation plan or plan revision, or in any submission to the Agency containing any proposed plan or plan revision (and any associated request for redesignation) that is pending before the Agency when the petition is submitted; and
Have to talk to Ron Hayes again. After talking awhile he said that the oxygenation chemicals are no longer needed and that Ethanol was used as this additive. The SIP area in Kansas City has a 7.0PSI pressure requirement that goes from May [?] to October [?], and this is to control aromatics [vapor pressure / voc's]
Since there is no longer a oxygenation requirement and the MO SIP has a Vapor pressure requirement, and the State has implements on January 1, 2008, the Missouri Renewable Fuel Standard [Section 414.255, RSMo], RON said that the St. Louis area could/should be simply a SIP program.

(3) For any opt-in areas covered by the petition for which reformulated gasoline is relied upon as a control measure as described under paragraph (b)(2) of this section, the petition shall include the following information:

(i) Identify whether the State is withdrawing any such pending plan submission;

(ii)(A) Identify whether the State intends to submit a revision to any such approved plan provision or pending plan submission that does not rely on reformulated gasoline as a control measure, and describe the alternative air quality measures, if any, that the State plans to use to replace reformulated gasoline as a control measure;

(B) A description of the current status of any proposed revision to any such approved plan provision or pending plan submission, as well as a projected schedule for submission of such proposed revision;

(iii) If the State is not withdrawing any such pending plan submission and does not intend to submit a revision to any such approved plan provision or pending plan submission, describe why no revision is necessary;

(iv) If reformulated gasoline is relied upon in any pending plan submission, other than as a contingency measure consisting of a future opt-in, and the Agency has found such pending plan submission complete or made a protectiveness finding under 40 CFR 51.448 and 93.128, demonstrate whether the removal of the reformulated gasoline program will affect the completeness and/or protectiveness determinations;

(4) The Governor of a State, or his or her authorized representative, shall submit additional information upon request of the Administrator,

(c)(1) For opt-out petitions received on or before December 31, 1997, except as provided in paragraphs (c)(2) and (c)(3) of this section, the Administrator shall set an effective date for removal of an area under paragraph (a) of this section as requested by the Governor, but no less than 90 days from the Agency's written notification to the state approving the opt-out petition, and no later than December 31, 1999.

(2) For opt-out petitions received on or before December 31, 1997, except as provided in paragraph (c)(3) of this section, where RFG is contained as an element of any plan or plan revision that has been approved by the Agency, other than as a contingency measure consisting of a future opt-in, then the effective date under paragraph (a) of this section shall be the date requested by the Governor, but no less than 90 days from the effective date of Agency approval of a revision to the plan that removes RFG as a control measure.

(3)(i) The Administrator may extend the deadline for submitting opt-out petitions in paragraphs (c)(1) and (2) of this section for a state if:

(A) The Governor or his authorized representative requests an extension prior to December 31, 1997;

(B) The request indicates that there is active or pending legislation before the state legislature that was introduced prior to March 28, 1997;

(C) The legislation is concerning opting out of or remaining in the reformulated gasoline program; and

(D) The request demonstrates that the legislation cannot reasonably be acted upon prior to December 31, 1997.

(ii) The Administrator may extend the deadline until no later than May 31, 1998. If the deadline is extended, then opt-out requests from that state received during the extension shall be considered under the provisions of paragraphs (c)(1) and (2) of this section.

(4) For opt-out petitions received January 1, 1998 through December 31, 2003, except as provided in paragraph (c)(5) of this section, the Administrator shall set an effective date for removal of an area under paragraph (a) of this section as requested by the Governor but no earlier than January 1, 2004 or 90 days from the Agency's written notification to the state approving the opt-out petition, whichever date is later.

(5) For opt-out petitions received January 1, 1998 through December 31, 2003, where RFG is contained as an element of any plan or plan revision that has been approved by the Agency, other than as a contingency measure consisting of a future opt-in, then the effective date for removal of an area under paragraph (a) of this section shall be the date requested by the Governor, but no earlier than January 1, 2004, or 90 days from the effective date of Agency approval of a revision to the plan that removes RFG as a control measure, whichever date is later.

(6) For opt-out petitions received on or after January 1, 2004, except as provided in paragraph (c)(7) of this section, the Administrator shall set an effective date for removal of an area as requested by the Governor, but no less than 90 days from the Agency's written notification to the state approving the opt-out petition.

(7) For opt-out petitions received on or after January 1, 2004, where RFG is contained as an element of any plan or plan revision that has been approved by the Agency, other than as a contingency measure consisting of a future opt-in, then the effective date for removal of an area under paragraph (a) of this section shall be the date requested by the Governor, but no less than 90 days from the effective date of Agency approval of a revision to the plan that removes RFG as a control measure.

(8) Notwithstanding any other provision of paragraph (c) of this section, for an area that opted in pursuant to Clean Air Act section 211(k)(6)(B), the Administrator shall not set the effective date for removal of the area earlier than four years after the commencement date of opt-in.

(d) The Administrator shall publish a notice in the Federal Register announcing the approval of any petition under paragraph (a) of this section, and the effective date for removal.

[61 FR 35680, July 8, 1996, as amended at 62 FR 54558, Oct. 20, 1997; 80 FR 6662, Feb. 6, 2015]

Appendix B

House districts in non-attainment zone: Republicans

- 64 Tony Lovasco 116-5 O'Fallon
- 65 - Tom Hannegan room 304-A St. Charles heather.mcknelly@house.mo.gov
- 89 - Dean Plocher room 233-A
- 94 - Jim Murphy room 115-H
- 95 - Michael O'Donnell room 115-D
- 96 - David Gregory room 233-B
- 97 - Mary Elizabeth Coleman room 400
- 98 - Shamed Dogan room 411-2
- 99 - Jean Evans room 405-B
- 100 - Derek Grier room 406-A
- 101 - Bruce DeGroot room 201-B
- 102 - Ron Hicks room 235 Dardienn Praire
- 103 - John Wiemann room 301 O'Fallon
- 104 - Adam Schnelting room 200-B St. Charles
- 105 - Phil Christofanelli room 406-B St. Peters
- 106 - Chrissy Sommer room 401-B St. Charles
- 107 - Nick Schroer room 206-B O'Fallon
- 108 - Justin Hill room 300 Lake st. Louis
- 109 - John Simmons room 116-2
- 110 - Dottie Bailey room 115-G

Senate districts in non-attainment zone:

- 2 - Bob Onder room 331A
- 15 - Andrew Koenig room 331
- 23 - Bill Eigel room 227
- 26 - Dave Schatz room 326

Congressional districts in non-attainment zone:

- 2 - Ann Wagner
- 3 - Blaine Luetkemeyer
- These are the only ones available without filling out forms:
- Tony.Lovasco@house.mo.gov
- Tom.Hannegan@house.mo.gov
- heather.mcknelly@house.mo.gov
- Dean.Plocher@house.mo.gov
- Jim.Murphy@house.mo.gov
- Michael.ODonnell@house.mo.gov
- David.Gregory@house.mo.gov
- MaryElizabeth.Coleman@house.mo.gov
- Shamed.Dogan@house.mo.gov
- Jim.Murphy@house.mo.gov

- Derek.Grier@house.mo.gov
- Bruce.DeGroot@house.mo.gov
- Ron.Hicks@house.mo.gov
- John.Wiemann@house.mo.gov
- Adam.Schnelting@house.mo.gov
- Phil.Christofanelli@house.mo.gov
- Chrissy.Sommer@house.mo.gov
- Nick.Schroer@house.mo.gov
- Justin.Hill@house.mo.gov
- John.Simmons@house.mo.gov
- Dottie.Bailey@house.mo.gov
- Bob.Onder@senate.mo.gov