



Missouri
Department of
Natural Resources

Kansas City Area Ozone Designation Process Meeting Two
Kansas University – Edwards Campus
Aug. 12, 2008
1 p.m. to 3 p.m.

Staff Members Present

David Lamb
Jeff Bennett
Mark Leath
Rebecca Birke
Tiffany Campbell

Others Present by Attendance Record

Rick Brunetti, KDHE
Tom Gross, KDHE
Doug Watson, KDHE
Julie Coleman, KDHE
Eric Bernskoetter, MoDOT
Richard Moppin, Leavenworth County Health Department
Bart Rudolph, Lawrence/Douglas County
Todd Girdler, Lawrence/Douglas County MPO
Allison Smith, KDOT
Randy Ebendrl, DeKalb County
Tiffany Le, KC BPU
Milo Renberg, AGC
Don Gansort, Trinity
Shane Krull, Miami County
Marc Phillips, Panhandle Eastern Pipeline
Mike Riedel, Panhandle Eastern Pipeline
Jess Hudnall, Panhandle Eastern Pipeline
Aveen Noori, KCMO Air Quality
Milo Vaub, KCMO Air Quality
Mike Robert, Hallmark Cards
Richard Ziesenis, Lawrence/Douglas County Health Department
Paul Ling, KCPL
Tom Jacobs, MARC
Amanda Graor, MARC
Jim Crenshaw, Clinton County
Larry King, Clinton County
Bruce Andersen, Unified Government, Division of Air Quality
Rollin Sachs, Unified Government, Division of Air Quality

Mike Boothe, Johnson County (KS) Environmental Department
Jennifer Logan, Johnson County (KS) Environmental Department

Opening Remarks

Doug Watson welcomed everyone to the second meeting for the ozone designation process. He then went over the overview for the presentation and the process for ozone designation.

EPA lowered the ozone standard in March. The standard is 75 ppb and an area violates at 76 ppb. No rounding involved with the new standard.

Doug went over the map of ozone monitors in the area and the different Metropolitan Statistical Areas in the area- see slide.

The design values for 2005-2007 data show that all monitors are exceeding the new standard. EPA guidance from 2003 will be utilized until they provide us with updated data.

Two tests with this process. Does a monitor in the area violate? Do VOC and NO_x emission sources in each county contribute to ozone concentrations over the standard? We have to determine the answer to these questions for each monitor and county.

Eleven Boundary Criteria – see slide.
Counties with a violating monitor – see slide.

Kansas Process

Tom Gross then discussed the process that Kansas has been working on since the last meeting.

MIRA – Multi-Criteria Resource Assessment Tool:

- Developed by EPA Region III
- Designed to rank elements of environmental sets
- Can include large numbers of diverse criteria
- Designed to reveal the rationale or justification for a decision.
- This was a tool to make all sorts of different decisions in a number of processes
- This is a very transparent process. All values input are evident as well as value judgments.

MIRA – General Approach – see slide.

MIRA – Output

Each of the 11 criteria matches up to the MIRA tool.

The Decision Tree is utilized by the MIRA approach. This breaks out into a five level tree to determine which are more weighted – see slide.

First Level Weighting with MIRA

Air Quality – 30%

Emission – 30%

Jurisdiction – 31%

Total Population – 30%

Second Level Weighting – see slide.

Third Level Weighting – see slide.

Fourth Level Weighting – see slide.

Fifth Level Weighting – see slide.

Please review these at your leisure and be sure to ask us if you have any questions. This will be posted on the Web.

Similar counties are grouped into bins based on their shared criteria. It helps point and data breaks and allows us to more easily group counties. It does not answer the who's in, who's out question. It just allows us to review and separate large amounts of data.

Question: How is this ozone season shaping up compared to last year's data? **Answer:** We are looking pretty good at this point. We are coming into September and we are in pretty good shape. As far as how this affects the violations that is not as simple. We have to look at the contribution test as well as the monitored violations.

Question: What are VOCs? **Answer:** Volatile Organic Compounds.

Question: Are these from natural sources? **Answer:** Not always, but some. These are mostly from vehicles, paints, etc.

Question: Do vehicle miles traveled lessened due to gas prices affect our perspective/data? **Answer:** Yes, but this data is not as much of a reduction based on the price of gas. Even though miles traveled have lessened it does not necessarily mean that this won't rebound when gas prices lower. Increased mobile source controls from EPA will also help us with vehicle miles traveled.

Missouri Summary Information

Jeff Bennett then discussed the Missouri process for the ozone designation process. He stressed that this is intended to be a transparent process. First he talked about the evaluation data – see slide.

Emission Totals/Percentages: This is a percentage attribution projected for 2009. This tells us the counties that are the highest contributors- see slide. This is ranking concept based on a total amount of emissions. The fundamental question – Do emissions from one area contribute to downwind air quality problems.

Emission Density Plots: This is projected for 2009 emissions. These NO_x emission density plots show us the areas with the densest emissions. The highway signals are readily evident. We are not talking about the big power plants in this view. These are low level point source emissions. This tells us that the downtown area is the densest, which is no surprise.

VOC Emission Density-this shows us the anthropogenic sources, not biogenic sources. There are more VOC emissions than NOx emissions. There is still a high density around the metropolitan complex.

Population/Urbanization: This is telling us that the urban areas are higher emitters, which is also no surprise. The one thing to notice about this is that you see more of an urban signal in Cass County; therefore urban sprawl has had some impact.

Population – it follows that the more urban areas are more populated.

Connectivity: This is a bit trickier. It is a concept of how connected you are to another area. ie: People living in one county and working in another and vice versa. The counties that have the bigger population in the MSA have more people working there.

Growth: Population growth as projected into the future. Cass County is growing and others. This is good from an economic perspective, but not as good from an air quality perspective.

Meteorological: This is wind data from ground-level airport data. Most of the times when we have higher ozone episode winds are from the south. The highest valued monitors are getting transport from the south. This is telling us these winds blow through the metro area.

These spaghetti plots show us that there is a major emitter south of Liberty. This is no surprise as the metro area is south of here. The wind does blow particles and pollution up through this area to the monitor.

When ozone is really high at Richards Gebaur- South, there is contribution from the KC metro area. But there are also other areas that are contributing. The other point to make is that ozone at 75 ppb is created from a variety of different meteorological conditions. This standard is totally different in that sense.

So how do you address this transport issue? The Clean Air Act prescribes that you look at the metropolitan approach, but also looks at inter and intra-state transport. All emissions sources in the Midwest contribute to some other area's problem. "How much..." That is the bigger question. Our controls and other state's controls are going to help everywhere.

Timeline for Implementation

This is a pretty rigorous schedule. Our recommendations are due by March 2009. EPA is offering in this designation process an opportunity for public comment. Both the states and the general public will have to opportunity to agree and disagree with EPA's preliminary determinations.

Opportunity for Input

Review technical information posted on the Web page for the ozone designation process. Please provide comments on any data, if necessary especially on population growth, economic growth/business development.

There will be an additional stakeholder meeting. This meeting is expected to be in late September. We will provide a draft designation for the area. Missouri will try to provide this prior to the last meeting so that it can be reviewed.

Question: What are the consequences of being designated as a nonattainment area? **Answer:** Existing sources may have to install some controls. New construction and industry will have to build with an eye toward air quality. Areas that don't have as many sources to address won't see more controls. EPA is still working on the implementation rule that will help us determine what an area may have to do.

Question: In the five counties that are already designated in the maintenance area seem to have already addressed all the low-hanging fruit, so to speak. Does this mean that we will have to look at smaller sources? **Answer:** Well eventually, yes. Areas may have to have lower thresholds for their Reasonably Available Control Technologies. We need EPA to step up to plate to help us address these issues on a national level.

Question: How does the Maintenance Plan come into this? **Answer:** We are still awaiting the results of these controls on air quality. Stuff that we did for ozone ten years ago is still good for ozone. None of these controls will go away. They will stay in place to maintain current air quality levels.