AGENDA

AIR QUALITY ADVISORY COMMITTEE*
TUESDAY January 26, 2016
10:00 a.m. - 12:00 noon
East-West Gateway Board Room

I. Call to Order
-Michael Coulson, Chair, East-West Gateway Council of Governments
A. Minutes of October 27, 2015 Meeting

II. 2015 Paris Agreement to Combat Climate Change
- John Posey, Ph.D., East-West Gateway Council of Governments

III. St. Louis Mobile Source Greenhouse Gas Emissions Study
- John Posey, Ph.D., East-West Gateway Council of Governments

IV. Proposed Federal Cross State Air Pollution Rule Update for 2008 Ozone Standard
- Stacy Allen, Missouri Department of Natural Resources

V. American Fuel Group Report
- St. Louis Regional Clean Cities Program

VI. Update Activities of the States
- Missouri Department of Natural Resources
- Illinois Environmental Protection Agency

VII. Other Business – Next Meeting Date March 29, 2016

VIII. Adjournment

*Please note that this meeting will serve as a part of the Inter-Agency Consultation Process as detailed in the Missouri Transportation Conformity SIP.
MINUTES
AIR QUALITY ADVISORY COMMITTEE
Tuesday, October 27, 2015
East-West Gateway Board Room

Members Present:
Michael Coulson, Chair, East-West Gateway Council of Governments
Stacy Allen - Missouri Department of Natural Resources
Betsy Tracy - Federal Highway Administration, Illinois
Mike Zlatic - St. Louis County Department of Public Health
David Bloomberg – Illinois Environmental Protection Agency
Mike Henderson – Missouri Department of Transportation
Jack Fishman – St. Louis University
Jeanine Arrighi – City of St. Louis
Steve Schneider – Bi-State Development/Metro
Chris Schmidt – Illinois Department of Transportation (telephone)

Others Present:
Joe Winkelmann – Missouri Department of Natural Resources
Kevin Herdler – St. Louis Regional Clean Cities Program
David Shanks – Boeing
Mike Alesandrin – AECOM
Jason Welsh – St. Louis University
Curtis Jones - Illinois Department of Transportation, OP&P
Andrew Warshaver – Citizens for Modern Transit
Andy Knott - Sierra Club
Madison County Transit/RideFinders (telephone)

Staff:
Jerry Blair      Mary Grace Lewandowski     Lubna Shoaib      Carol Lawrence
Rodney Halbert

I. Call to Order
   - Michael Coulson, Chair, East-West Gateway Council of Governments

The meeting of the Air Quality Advisory Committee (AQAC) was called to order by Chair Michael Coulson, East-West Gateway Council of Governments (EWG). The minutes of the September 29, 2015 AQAC meeting were approved as circulated. Those attending the meeting and the people participating by telephone introduced themselves.

II. 2015 Ozone Standard and Potential State Impacts
   - Stacy Allen, Missouri Department of Natural Resources

On October 1 the U.S. Environmental Protection Agency (EPA) finalized the revision to the ozone National Ambient Air Quality Standard to 70 parts per billion (ppb) from 75 ppb. The final rule was published in the Federal Register on October 26. The standard has the same form
and averaging review time as the 2008 standard. The secondary (protecting trees, plants and ecosystems) standard was set the same as the primary standard. In the last few weeks EPA Region 7 has made presentations to the Mid America Regional Council in Kansas City and the Southeast Missouri Regional Planning and Economic Development Commission in Perryville.

Starting in 2017, for Missouri and some other states, the ozone season will start in March instead of April and end in October. In addition, the Missouri Department of Natural Resources (MoDNR) will have to upgrade one of its existing National Core (N-Core) multi-pollutant equipment monitor sites in the St. Louis area to Photochemical Assessment Monitorings (PAMS) equipment.

Using 2012-2014 monitor data, the design value of every monitor in St. Louis area was above 70 ppb. The 2012 summer was hot and dry. Preliminary design values for each monitor have been calculated using 2013-2015 data. Right now, only the West Alton monitor would be in violation of the 2015 standard with a design value of 71ppb. To be in attainment all monitors have to meet the standard. The 2015 ozone season ends on Halloween. Quality assurance of the 2015 monitor data will begin in January. After the 2015 monitor data is quality assured, MoDNR will use design values based on 2013-2015 data to develop boundary recommendations (attainment, non-attainment or unclassifiable) for EPA to consider. EPA intends to use design values based on 2014-2016 data to make final designations. Based on 2012-2014 data for Kansas City area, four monitors out of five would be in violation of the 2015 standard. But with 2013-2015 data, all Kansas City monitors would be in attainment. The 2012-2014 design values for the Bonne Terre and Farrar (Perry County) monitors (located downwind of St. Louis) were slightly above the new 2015 standard. When use the 2013-2015 data, their design values drop below 70 ppb. Similar findings are anticipated for the monitors in Springfield, Alba and Joplin.

Technical analysis of emissions, commuting patterns, meteorology and other factors identified by EPA will be used to develop boundary recommendations. EPA is to issue guidance. MoDNR will be working with Illinois Environmental Protection Agency (Illinois EPA). Public review and comment on Missouri’s boundary designation recommendations and associated technical analysis is expected to take place from July to September 2016. If possible, the public review may start earlier. Recommendations are to be submitted to EPA by October 1, 2016. In June 2017, EPA will send each state a letter stating proposed changes to boundary recommendations. Missouri will then be able to respond with additional data and analysis, if needed. EPA will finalize the boundary recommendations on October 1, 2017.

Sometime in 2016 EPA will propose the 2015 ozone standard implementation rule including non-attainment area classifications. It is to be finalized in 2017. Missouri infrastructure and transport state implementation plans (SIPs) are to be submitted to EPA by October 2018. Depending upon classification, SIP(s) will be due to EPA in 2020 or 2021. The deadline for a non-attainment area to attain the standard could be from 2020 to 2037. It is anticipated that marginal non-attainment areas likely will have to attain the 2015 standard between 2020 and 2025.

Mr. Coulson, EWG, observed that EPA will base their decision on 2014-2016 data, but the state will have boundary recommendations ready by summer 2016. Ms. Allen, MoDNR, said that
boundary recommendations have to be based on the most recent three full years of quality-assured data (2013-2015). MoDNR has calculated the critical design value for the 2014-2016 and determined that for the area to be in attainment, the West Alton monitor design value needs to be 71 ppb. It is possible that Missouri could submit a non-attainment boundary recommendation in 2016 and EPA could then make a decision in 2017 that the area does not have a violating monitor and Missouri’s boundary recommendation is not appropriate and designate the area as being in attainment.

Mr. Coulson, EWG, asked if MoDNR is going to prepare an Attainment Demonstration request for the 2008 ozone standard. Ms. Allen, MoDNR, said that after the 2015 data is quality-assured, MoDNR will draft a letter to EPA requesting a clean data determination for the 2013-2015 data. When EPA issues the clean data determination, MoDNR will prepare a Redesignation to Attainment Request and a Maintenance Plan. The Maintenance Plan covers a ten year period and is to show that the controls which helped the area reach attainment will remain in place. Motor vehicle emission budgets will be established. The budget year will be set for the tenth year after the expected approval date of the Maintenance Plan (2027 or 2028). The Redesignation Request and Maintenance Plan will probably not be completed before the end of next year. MoDNR will coordinate with Illinois EPA.

Mr. Henderson, Missouri Department of Transportation (MoDOT), asked if the area is redesignated to attainment, will conformity determination still have to be done. Ms. Allen, MoDNR, said that it is possible but it would be at least ten years away. Mr. Coulson, EWG, pointed out that St. Louis area is still non-attainment for the 1997 fine particulate (PM$_{2.5}$) standard, so conformity continues.

Mr. Coulson, EWG, asked if, with the 2015 standard, the St. Louis area will continue to be the only ozone non-attainment area in EPA Region 7. Ms. Allen, MoDNR, said that with the ozone standard at 70 ppb, there are no new non-attainment areas in Region 7. Mr. Coulson, EWG, said that in the past there was concern in southeast Missouri about non-attainment. Ms. Allen, MoDNR, said that the Perry (Farrar) and Bonne Terre monitors have 2013-2015 design values less than 70 ppb so this is not as much of an issue. These monitors will be included in the technical analysis for the boundary recommendations. Meteorological data for these monitors indicates that on high ozone days they were not influencing St. Louis as had been anticipated.

III. Gateway Vehicle Inspection Program: Cleaner Cars on the Road & Cleaner Air to Breathe

- Joe Winkelmann, Missouri Department of Natural Resources

Vehicle emissions inspection and maintenance (I/M) program has been a required control measure since St. Louis was first classified as a moderate ozone non-attainment area under the 1990 Clean Air Act Amendments. Maintenance of vehicle’s emission control system is a way for vehicle owner to help to reduce ground level ozone. Since 1984 the Air Pollution Control Program at MoDNR has operated a motor vehicle emissions inspection program in the five county St. Louis area. There are 2.2 million passenger cars and light duty trucks in the area, comprising 35 percent of the vehicles in Missouri.
From 1984 to 1999, neighborhood gas stations that performed safety inspections also did gas analyzer idle exhaust test (tailpipe test). In 2000, the centralized Gateway Clean Air Program began with 12 stations and two mobile rapid scan vans. 1981 and newer model year vehicles were subject to a running dynamometer exhaust test and a gas cap check. Starting in 2005, 1996 and newer model year vehicles had On-Board Diagnostic second generation (OBDII) testing. OBDII verifies and checks that a vehicle’s emission control system is operating efficiently. In 2006, legislation was passed authorizing a return to a decentralized emissions inspection program using the OBDII test.

On September 1, 2007, the Gateway Vehicle Inspection Program (GVIP) started. GVIP has 11 Inspection/Maintenance staff (Inspection Services Unit and Technical Services Unit) located at the MoDNR St. Louis Regional Office. Additional compliance/enforcement staff are in Jefferson City. A contractor provides, operates and maintains the computer analyzers and the testing database and software. The GVIP has over 850 local inspection stations (public, private and governmental) and over 5,000 licensed inspector mechanics. Station and inspection licensing is the responsibility of the Motor Vehicle Inspection Division of the Missouri State Highway Patrol (MSHP). Inspection performance oversight and enforcement is the responsibility of both MoDNR and the MSHP.

Model year 1996 and new gasoline-powered vehicles, cars and trucks, with a Gross Vehicle Weight Rating (GVWR) of less than 8,500 pounds are required to be tested biennially. In addition, model year 1997 and newer diesel vehicles with GVWR of less than 8,500 pounds are to be tested. Emissions inspections are required at on-cycle biennial registration renewal time and when vehicle title is transferred (ownership change). The fee for the initial OBDII emissions inspection can be no more than $24. Exempt from testing are vehicles with GVWR of more than 8,500 pounds, plug-in hybrids and non-gasoline/non-diesel fueled vehicles. A vehicle owner can apply for a mileage exemption if it can be documented that their vehicle is less than two years old and has less than 40,000 miles at the time of its first biennial renewal or if their vehicle has been driven less than 12,000 miles between renewals.

In the OBDII emissions inspection test a data analyzer is plugged into a car’s OBD computer and communicates with it and verifies that the vehicle is ready to be tested. The data analyzer then scans for any diagnostic trouble codes. If the vehicle’s computer is not identifying any trouble codes and not commanding that the Malfunction Indicator Lamp (MIL/Check Engine light) be on, then the vehicle passes the OBDII test. If a vehicle fails the OBDII test, an inspection report is prepared which identified the failing diagnostic trouble codes. If the vehicle fails the test, it can have one free inspection at the same station within 20 business days.

A failed vehicle must be repaired until it can pass a re-test or until all requirements for either a cost-based or estimate-based waiver are met. A waiver allows the owner to be able to renew the vehicle’s registration. To receive a cost-based waiver, repairs have to resolve the cause of one or more of identified trouble codes and repair costs have to exceed $450 in qualified parts alone or $450 in qualified parts and labor performed by a Missouri Recognized Repair Technician. If owner repairs vehicle, qualified parts have to cost more than $400. If a vehicle owner can document the receipt of federal or state disability, the waiver limit for qualified repairs is $200. An estimate-based waiver can be obtained if: only one diagnostic trouble code was identified.
during the OBDII test; the diagnosis of cause of the trouble code was obtained and provided; and repair estimate is greater than $450 in parts and labor. With an estimate-based waiver, the vehicle owner has two years to complete the required repair(s) before vehicle has to be tested again.

A waiver also can be obtained if it can be documented that a vehicle will be exclusively driven outside of the St. Louis area for the next two years. Leasing companies and utilities headquartered in St. Louis whose fleets are elsewhere in Missouri apply for this type of waiver. A reciprocity waiver is available for vehicles registered in St. Louis area but located in a state with OBDII test program. The vehicle can be tested where it is based.

Each year the GVIP conducts approximately 800,000 vehicle emission tests. Staff answers 10,000 phone calls and processes 3,000 forms. The majority of phone calls received are about waivers. In 2014, staff conducted 1,761 inspection station/mechanic overt audits and 855 inspection station/mechanic covert audits. GVIP staff also does education and outreach to the repair community and the motoring public. MoDNR staff acts as the lead for inter-agency coordination with the Missouri Department of Revenue and the MSHP and coordinates and supervises the computer contractor.

In 2014, emission-tested vehicles had a 97 percent final compliance rate. MoDNR enforcement staff and the MSHP performed 375 electronic lockouts of analyzer equipment. This prevented station or an inspector from using equipment until compliance issues were corrected. Lockout could range from three days to six months. Licenses at four stations were suspended/revoked for “clean screening” violations (accepting money to show vehicle passed test). For more information about GVIP, go to www.gatewayvip.com.

IV. Illinois Ozone and SO2 Update
   - David Bloomberg, Illinois Environmental Protection Agency

Under the current 2008 eight-hour ozone standard, the Chicago area and the Metro East are marginal non-attainment areas. Using 2012-2014 monitoring data, neither area met the 2014 attainment deadline. Court decision did not allow the use of 2015 data to determine attainment as three full years of data were needed. For the St. Louis area, Illinois and Missouri both applied to EPA for a one year extension of the attainment deadline to 2015 and received it. The Chicago area did not satisfy extension requirements and will be “bumped up” from marginal to moderate classification. 2015 was a good year with low ozone values which allowed both areas to come into attainment of the 2008 standard. It is possible that Illinois will be submitting to EPA a request for redesignation to attainment for the Chicago area before the “bump up” requirements kick in. Illinois EPA will be working with Wisconsin, Indiana and Missouri to get the 2015 data certified as quickly as possible and move onto preparing redesignation requests.

On October 1, 2015 EPA finalized the new eight-hour ozone standard from 75 ppb to 70 ppb. It was published in the Federal Register on October 26 with an effective date of December 28, 2015. For Illinois and many other Midwestern states EPA also extended the start of monitor season to March. In their comments on the proposal, Illinois objected to this extension. State boundary designation recommendations are due to EPA by October 1, 2016. EPA will be using
2014-2016 monitor data to make its designation proposals. EPA will inform the state of its designation proposals by June 1, 2017 and will finalize them by October 1, 2017. In the Federal Register notice the effective date is December 28, 2015. Unsure if EPA will push the designation schedule back to match up with this date. Conference call with EPA indicates that they will be using 2014-2016 monitor data. But if EPA delays the designation recommendation deadline for the states, then EPA may be able to use 2017 data. Mr. Bloomberg, Illinois EPA, assumes that if 2017 is a bad ozone year, EPA will use 2015-2017 data and if it is a good year, EPA will use 2014-2016 data.

With the 2015 standard it is likely that the new non-attainment areas in Illinois will be similar to the old non-attainment areas. Possibility exists that if the St. Louis has a good ozone summer, attainment could be possible. Both the Chicago area and the Metro East are likely to be classified as marginal non-attainment with an attainment deadline of 2020. It is the view of EPA that existing and proposed federal rules will help bring these areas into attainment. Some of the rules to be in effect by 2020 are: Regional Haze regulations; Mercury and Air Toxics (MATS) regulations for power plants; and Interstate Transport rules. The Clean Power Plan is going to help but not due to a reduction of greenhouse gas emissions but because some dirtier power plants are going to shut down which will reduce oxides of nitrogen emissions.

Currently Illinois has two non-attainment areas for the 2008 sulfur dioxide (SO₂) standard in the Peoria/Pekin area and the Lemont area (near Chicago). When the two proposed rules SO₂ rules for these areas were filed with the Illinois Pollution Control Board (IPCB), Illinois EPA requested a rush schedule. IPCB sent the rules to “first notice” immediately and three hearings took place. One proposed rule sets a statewide limit for sulfur content in fuel oil, requiring use of ultra-low sulfur diesel. Everyone is already using this fuel but unless there is a state rule, EPA will not give the state credit for it as a control. The other rule sets specific limits for four “culpable” sources of non-attainment within and near the two non-attainment areas. The IPCB voted 4-1 in favor of the proposed rules and moved them on to “second notice”. The proposed rules were then sent to the Illinois Legislature’s Joint Committee on Administrative Rules (JCAR), made up of House and Senate members from both political parties. The purpose of JCAR is to make sure that the proposed rules are in accord with Illinois law. JCAR meets November 17 and can vote to accept the rules, make changes or send them back to IPCB as unacceptable. Illinois EPA is aware there is lobbying campaign asking JCAR to reject the proposed rules. Industry is completely on board with the provisions of this rule. In talks with industry, Illinois EPA has explained that although industry may not be located within the non-attainment area their emissions are going into that area and are impacting it. Illinois EPA has been preparing an Attainment Designation which should be out shortly for notice in the Illinois Register. Illinois EPA is going to have a SIP hearing in December with comment periods before and after that. The aim is to submit the Attainment Demonstration to EPA sometime in early to mid-February 2016.

Under the March 2015 EPA/Sierra Club consent decree, Illinois EPA evaluated five large electric generating units (EGUs)/power plants and their surrounding areas. They were: Hennepin; Newton; Marion; Joppa; and Wood River. Designation recommendations were submitted to EPA in September 2015. Recommendations were based on modeling output. In in addition to power
plants, needed to model large SO\textsubscript{2} sources/potential SO\textsubscript{2} contributors locate near them. For all five power plants Illinois EPA recommended attainment. However, around the Dynegy Wood River power plant, found another facility (Alton Steel) which was causing non-attainment. Illinois EPA recommended that there be a small non-attainment area around the problem facility, excluding the power plant. The facility is aware of the problem and is already looking at what they could do to remedy the situation such as a stack reconfiguration.

Illinois EPA has begun the evaluation of additional areas for EPA’s Data Requirement Rule for SO\textsubscript{2} standard. At least eight areas will be examined. Areas are in or near the Metro East include Prairie State EGU in Washington County, Baldwin EGU in Randolph County and US Steel/Gateway Energy and Coke in Granite City. Modeling output (default approach) or monitoring data will be used to determine which new areas should become non-attainment. Only one area is expected to go with monitoring data. In the modeling process, will look at large SO\textsubscript{2} sources and will generally go out 10 kilometers (six miles). Modeling has shown that the biggest impacts are nearby. Modeling-based boundary recommendations are due in 2017 and monitoring-based recommendations are due in 2020. Other areas may need to be examined as Illinois EPA is still evaluating EPA guidance.

V. American Fuel Report  
- Kevin Herdler, St. Louis Regional Clean Cities Program

Over the summer, two compressed natural gas (CNG) refueling stations were opened near Edwardsville at New Poag Road and IL-255 and in the City of St. Louis at 2\textsuperscript{nd} and Miller. This station is owned by Anheuser-Busch and 97 CNG Class A beer trucks (11 million miles) will use this station. Using an EPA grant, St. Louis Regional Clean Cities (SLRCC) is helping to purchase 19 CNG school buses and possibly to repower a boat. SLRCC has begun making preparations for the Eco City vehicle display at the January 2016 St. Louis Car Show.

VI. Update Activities of the States  
- David Bloomberg, Illinois Environmental Protection Agency  
- Stacy Allen, Missouri Department of Natural Resources

Mr. Bloomberg, Illinois EPA, said that Illinois is primarily focused on SO\textsubscript{2} and ozone. Staff is still developing an approach to address the changes to state rules that the federal Start Up, Shut Down and Malfunction rule has created. He added that the Chicago area near roadway monitoring contract has been finally signed.

Mr. Coulson, EWG, asked if the requests for attainment of the 2008 ozone standard Attainment Demonstration will be coordinated with EPA Region 5 and Region 7. He pointed out that St. Louis area is considered a unified non-attainment area and cannot be separated. Mr. Bloomberg, Illinois EPA, agreed but pointed out that in 2012 Illinois side was designated as in attainment for the 1997 ozone standard. Because it was a maintenance area, Illinois had to prepare a report while Missouri did not have to do anything. Illinois and Missouri will work together to certify monitor data, to share emissions inventories and to agree on inventory dates. Beyond that, hope that Regions 5 and 7 will work together in a timely manner. EPA Region 5 wants to move quickly on the redesignation as the person who will work on it is retiring at the end of 2016 and
considers bringing Illinois into attainment their “crowning achievement”. It is possible that Illinois could have no ozone non-attainment areas for very brief period between this standard and the next one.

Ms. Allen, MoDNR, said that MoDNR received no comments on the proposal to increase asbestos fees. Stakeholders have been involved throughout the process. The increase would cover the cost of operating the asbestos fee unit. At the October 29, 2015 Missouri Air Conservation Commission (MACC) meeting, MoDNR staff will be recommending adoption. The proposed permit fee increases are going to go to public hearing for the first time at the October 29 MACC meeting. They were published in the Missouri Register on September 15. Comments on the proposed permit fees are due by close of business on November 5.

Missouri agencies are required to review all their rules every five years and determine if each rule is needed or not. MoDNR staff identified Alternate Emissions Rule 6-100 (volatile organic compound Reasonably Available Control Technology) as obsolete since it has not been used since the 1990s. It will take staff approximately a year to have this rule rescinded.

In September MoDNR submitted SO₂ boundary recommendations to EPA under the March 2015 EPA/Sierra Club consent decree. MoDNR has begun the evaluation of additional 12–20 sources under EPA’s Data Requirement Rule. It is expected that modeling will be conducted for the majority of sources. One or two sources are still considering going with monitoring which they would have to pay for. Cost is a consideration as is length of time monitoring would have to be done. Sources, like Ameren, are aware that they probably will not be able to stop monitoring after 36 months or an averaging time of 42 months. Sources are planning on a minimum of a five year commitment.

VII. Other Business

Mr. Zlatic, St. Louis County, announced that on October 29, 2015 the St. Louis Regional Chamber is holding a panel discussion on the West Lake landfill.

Mr. Coulson, EWG, said that staff will let the AQAC know the date of the January 2016 meeting well in advance. He also announced that EWG’s 50th Annual Meeting will be on November 18 at the Hilton Union Station.

There being no other business, the meeting of the Air Quality Advisory Committee was adjourned.