



**EAST-WEST GATEWAY
Council of Governments**

Creating Solutions Across Jurisdictional Boundaries

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**AGENDA
AIR QUALITY ADVISORY COMMITTEE*
TUESDAY, JUNE 23, 2020
10:00 a.m. – 11:00 a.m.
VIRTUAL MEETING – GOTOMEETING**

DUE TO COVID-19 OUTBREAK, EAST-WEST GATEWAY’S OFFICES ARE CURRENTLY CLOSED TO THE PUBLIC AND WILL BE UNTIL FURTHER NOTICE

You can listen/talk and/or view the meeting via:

Computer – <https://global.gotomeeting.com/join/314943949>

Access code for meeting through computer: 314-943-949

Or, Phone: +1 (646) 749-3122

I. Call to Order

- Carol Lawrence, Chair, East-West Gateway Council of Governments
- A. Minutes of May 26, 2020 Meeting

II. St. Louis Area Cancer Risk Air Toxics Spatial Analysis Study

- Dr. Christine Ekenga, Washington University

III. American Fuels Report

- St. Louis Regional Clean Cities Program

IV. Update Activities of the States

- Illinois Environmental Protection Agency
- Missouri Department of Natural Resources

V. Other Business –

- Next Meeting August 25, 2020

VI. Adjournment

* Please note that this meeting will serve as a part of the Inter-Agency Consultation

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MINUTES
AIR QUALITY ADVISORY COMMITTEE
Tuesday, May 26, 2020
10:00 am – 11:00 am
VIRTUAL MEETING - GoToMeeting

Members Present:

Carol Lawrence, Chair – East-West Gateway Council of Governments
Kevin Jemison – Illinois Department of Transportation
Betsy Tracy – Federal Highway Administration Illinois
Susannah Fuchs – American Lung Association
Mallory Box – Citizens of Modern Transit
David Bloomberg – Illinois Environmental Protection Agency (Telephone)
Stacy Allen – Missouri Department of Natural Resources
Jack Fishman – St. Louis University
Mike Henderson – Missouri Department of Transportation
Jeanine Arrighi – City of St. Louis Department of Health

Others Present:

Benjamin de Foy – St. Louis University
Catherine Werner – City of St. Louis
Jed Wolkins – U.S. Environmental Protection Agency, Region 7
Kevin Herdler – St. Louis Regional Clean Cities Program
Steve Whitworth – Ameren

Staff:

Mary Grace Lewandowski Jennifer Vuitel Aaron Young Maureen McCarthy

1. Call to Order

- Carol Lawrence, Chair, East-West Gateway Council of Governments

The meeting of the Air Quality Advisory Committee (AQAC) was called to order by Chair Carol Lawrence, East-West Gateway Council of Governments (EWG). The minutes of the January 28, 2020 AQAC meeting were approved as circulated.

2. Air Pollution Impacts and Lessons Learned From the Lockdown

- Dr. Benjamin de Foy, St. Louis University

Dr. de Foy shared NASA’s Earth Observatory images of the aerosol (solid and liquid particles suspended in the atmosphere) optical depth over India between 2016 and 2020. These images show a reduction in pollution during that time span. He also shared images from the OMI satellite which captured a sharp drop in nitrogen dioxide (NO₂) columns over China between

January and February 2020. The drop in NO₂ during that time is a result of a slowing or halting of industrial activities due to the efforts associated with slowing the spread of the Coronavirus. Satellite imagery of cities at night has also captured a change in human activities which allows scientists to infer how emissions vary by economic sectors. For example, one of the most visible changes in these images is the reduction of traffic between January and February due to people being required to stay home.

Satellite sensors have played a crucial role in emissions research. Since 2005 the OMI satellite sensor has been one of the most successful sensors for monitoring pollution, specifically NO₂, all over the world. NO₂ is easier to see in the atmosphere than other pollutants and is therefore often used to reflect pollution changes observed in the satellite imagery. The TROPOMI satellite sensor, which was launched about a year ago, also tracks pollution but has a much higher resolution than the OMI sensor. There has been a specific focus on the Chinese city of Wuhan during this current pandemic. Satellite sensors have revealed that there has been a sustained decrease in NO₂ emissions, as compared to previous years, since the lockdown began earlier in 2020. Unlike NO₂ there was an increase in ozone levels in Wuhan after the lockdown began. One of the causes of this increase is higher temperatures in that region this year than in previous years. Just like the images of India and China, satellite images of the United States between 2019 and 2020 show a decrease in NO₂ in several major metropolitan areas including St. Louis. There have been global reductions of NO₂ seen by the satellites.

There are several lessons that can be learned from the Coronavirus pandemic. Events such as this remind us of the importance of air quality. It is estimated that four million people around the world die every year as a result of poor air quality. Using the 2016 estimates of the impact of changes in PM on mortality, Dr. de Foy has calculated that having two months of 10 micrograms per cubic meter of PM_{2.5} reductions likely has saved the lives of 4,000 kids under the age of five and 73,000 adults of the age of 70 and over in China. The lives saved due to the pollution reductions are roughly twenty times the number of lives that have been directly lost to Covid-19 (based on March 8 estimates of 3,100 Chinese Covid-19 deaths). Poor air quality causes deaths by making existing medical conditions worse. This has also been found to be true for those with Covid-19. An increase in long term PM_{2.5} exposure of one microgram per cubic meter can lead to an increase of eight percent in mortality due to Covid-19. This means that a polluted place could have double to mortality rate than an area with clean air.

Another important lesson is that an ounce of prevention is better than a pound of cure. A major goal of the lockdown is to flatten the curve. An environmental example of this was the Montreal protocol of 1987 instituted to reduce stratospheric chlorine created by the use of CFCs. After 1987 the levels of stratospheric chlorine continued to rise, but thanks to the continuous efforts made after the Montreal protocol, around the year 2000 the levels of chlorine began to, and have continued, to drop. The longer it takes to act, the harder it is to flatten the curve. It is estimated that in order to stabilize the climate the rise in global temperature needs to be kept under 1.5 degrees Celsius. The best case scenario is if we act now to dramatically reduce our carbon emissions we might be able to attain the goal of 1.5 degrees.

A third lesson from the current situation is that policies matter. A lockdown is not the solution to long term pollution reductions. Dr. de Foy assembled NO₂ data from 2005 – 2015. There were big reductions in NO₂ as a result of long term actions. Also shown in this data is air quality during the recession between 2007 and 2009. During that time there was a reduction in economic activity which led to a drop in air pollution. However, once the economy recovered air pollution began to rise back to pre-recession levels and then returned to following the long term decline trend. Dr. de Foy found that some of the places with the largest declines in pollution were also the places that performed the best economically. The long term actions to reduce pollution are consistent with improved economy and technology, whereas the short term actions do not bring lasting change.

3. Update Activities of the States

- Stacy Allen, Missouri Department of Natural Resources

At the February 3rd Missouri Air Conservation Commission (MACC) meeting there was the public hearing and voting for the following rules: PH on *10 CSR 10-5.500 Control of Emissions From Volatile Organic Liquid Storage* and *10 CSR 10-5.540 Control of Emissions From Batch Process Operations*; St. Louis VOC rules, and amendments to *6.241 Asbestos Projects- Registration, Abatement, Notification, Inspection, Demolition, and Performance Requirements*. Adoption was voted on for *10 CSR 10-6.030 Sampling Methods for Air Pollution Sources*, *10 CSR 10-6.390 Control of NO_x Emissions From Large Stationary Internal Combustion Engines*, and *10 CSR 10-6.060 Construction Permits Required*.

The March 26th meeting became a virtual meeting. There were Public Hearings for amendments to *10 CSR 10-5.390 Control of Emissions From Manufacture of Paints, Varnishes, Lacquers, Enamels and Other Allied Surface Coating Products*, *10 CSR 10-6.061 Construction Permit Exemptions*, *10 CSR 10-6.070 New Source Performance Regulations*, *10 CSR 10-6.075 Maximum Achievable Control Technology Regulations*, *10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants*, *10 CSR 10-6.270 Acid Rain Source Permits Requirements*, *10 CSR 10-6.405 Restriction of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating*, and *10 CSR 10-2.330 (rescission) Control of Gasoline Reid Vapor Pressure*, and one SIP revision for *Proposed Area Boundary Recommendations for the 2010 Sulfur Dioxide Standard: December 2020 Designations*. The MACC voted to adopt the STL VOC rules from January and a SIP revision *Air Quality Control Region Priority Reclassification Request – Multipollutant*.

On April 29th there was a virtual meeting and MACC voted on the SIP revision to *Proposed Area Boundary Recommendations for the 2010 Sulfur Dioxide Standard: December 2020 Designations*. This action affects two areas of the state containing three sources. Based on monitoring data, the recommendations were that the area around the Doe Run – Buick Resources Recycling Facility in Iron County be designated as attainment/unclassifiable for this standard and the area around Magnitude7Metals and the New Madrid Power Plant in New Madrid County be designated as non-attainment.

The May 28th meeting will be virtual. No public hearings are planned for that date. There will be a vote on the adoption of the eight rules from the March public hearing.

The July 30th meeting is still on the schedule and it will be held at the St. Louis regional office. It has not yet been decided if this meeting will be virtual or in person.

The EPA has proposed the clean data determination for Kansas City's SO₂ in April 2020. This is the next step towards re-designating the Kansas City area.

MoDNR is working with affected facilities to implement the Affordable Clean Energy Rule (ACE) which addresses carbon dioxide (CO₂) performance standards for coal fired power plants. MoDNR requested data from those facilities that was due March 31, but there have been requested extensions.

MoDNR's Air Program receives the majority of its funding from fees from permit applications and emissions fees. Due to improvement in air quality and the reduction of emissions, there is less tonnage being paid for and as a result a funding shortfall is predicted for the 2023-2027 timeframe. There have been three stakeholder meetings on how to respond to these projected changes. Another meeting is scheduled for Thursday, May 28th.

Volkswagen Trust applications are open through May 31st for all categories except DERA and EV charging stations. The VW Trust funds cannot be used on anything other than then ten categories laid out by the trust.

- **David Bloomberg, Illinois Environmental Protection Agency**

There have been two new people hired to work in the monitoring area. There are several positions open and they are listed on the State of Illinois hiring website. All of the monitoring sites are still running except for one ozone site in rural central Illinois.

Illinois EPA has requested EPA to re-designate the Chicago area to attainment of the for the 2008 ozone standard.

In today's Federal Register, EPA announced the re-designates two of the remaining SO₂ non-attainment areas (Pekin and Lamont) to attainment. The Alton Steel non-attainment area is the one remaining for SO₂. The source has made adjustments to its operation and monitoring shows this area is in attainment of the standard. However, the re-designation is on hold as there is impact (modeled not actual) from a source in Missouri and that issue needs to be resolved by EPA Regions 5 and 7.

In the new round of SO₂ designations there is one county in central Illinois that was recommended to be re-designated as attainment/unclassifiable.

4. Other Business

The last several OneSTL Sustainability Labs have been held virtually and the next one today, May 26, will also be virtual. There will be a presentation by a dance troupe that incorporates sustainability into their productions. In June the Sustainability Lab will be hosting a sustainability Shark Tank concept with T-Rex that will have presentations from businesses and startups pitching their sustainable business concepts. OneSTL is also planning a sustainability summit that was supposed to take place in November 2020, but due to the coronavirus it most likely will be postponed until 2021. There will be online programming in November instead of the summit that will focus on the OneSTL working groups. There will be a calendar posted on the OneSTL get involved page of their website that will highlight virtual educational events hosted by partner organizations. More information about the upcoming meetings and events can be found on www.onestl.org

5. Adjournment

The next meeting will be on June 23, 2020. There being no other business, the meeting was adjourned.