

Creating Solutions Across Jurisdictional Boundaries

AGENDA AIR QUALITY ADVISORY COMMITTEE* Tuesday, January 26, 2021

10:00 a.m. – 11:00 a.m. VIRTUAL MEETING - GOTOMEETING

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I. Call to Order

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

A. Minutes of October 27, 2020 Meeting

II. 2015 Ozone Designations Remand – Jefferson and Monroe **Counties**

Jed Wolkins, U.S. Environmental Protection Agency Region

III. **American Fuel Report**

St. Louis Clean Cities Program

IV. **Update Activities of the States**

Illinois Environmental Protection Agency

Missouri Department of Natural Resources

V. Other Business –

The next meeting is on March 30, 2021

VI. Adjournment

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

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Non-voting Members

Holly Bieneman Illinois Department of Transportation

> Vacant Illinois Department of Commerce

and Economic Opportunity Patrick McKenna Missouri Department of Transportation

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MINUTES AIR QUALITY ADVISORY COMMITTEE

Tuesday, October 27, 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

David Bloomberg – Illinois Environmental Protection Agency

Kathrina Donegan – St. Louis County Department of Health

Michael Henderson – Missouri Department of Transportation

Susannah Fuchs – American Lung Association

Jeanine Arrighi – City of St. Louis Health Department

Betsy Tracy – Federal Highway Administration, IL

Francisco Cortalezzi – Missouri Department of Natural Resources

Mallory Box – Citizens for Modern Transit

Christopher Schmidt – Illinois Department of Transportation

Others Present:

Roger Walker - REFORM

Kimberly Bauman – Mississippi Lime

Stephen Whitworth Ameren

Virginia Woulfe-Beile -Sierra Club IL

Andy Knott – Sierra Club MO

Michael Hutcheson - Ameren

Stephen Hall – Missouri Department of Natural Resources

Mark Leath – Missouri Department of Natural Resources

Jed Wolkins – EPA Region 7

Buzz Asselmeier – Illinois Environmental Protection Agency

Kevin Herdler – St. Louis Clean Cities

Stacy Allen – Ameren

Amanda Schomaker – Madison County Transit

Staff:

Mary Grace Lewandowski Jennifer Vuitel Aaron Young Gena Jain 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 August 25, 2020 AQAC meeting were approved as circulated.

2. Air Quality Monitoring Trends

- Stephen Hall, Missouri Department of Natural Resources

The Air Quality Analysis section has four functions: data management for point sources; monitor network design (Environmental Services operates monitors); small business compliance assistance; and record management. Today will be talking about some of the monitoring trends observed. From 2003 to 2019 there has been a downward trend in the nitrogen dioxide (NO₂) design values in the St. Louis area. Based on 24 hour averages and annual averages there has also been a downward trend in the fine particulate (PM_{2.5}) design values during the same time period.

Data from monitors at the Rider Trail I-70 near-roadway air monitoring site and the Forest Park (I-64) site were used to determine possible effects on air quality of the COVID-19 stay-at-home order in St. Louis City and County beginning on March 23, 2020 through May 4, 2020. The post stay-at-home period from May 5, 2020 through July 31, 2020 was also analyzed. Data from the same time periods in 2019 was compared to the data in 2020. Data from the Forest Park site showed that the 2020 stay-at-home period weekday NO₂ concentration was consistently lower than the concentration in 2019 but followed a similar pattern based on the time of day. The data from Forest Park during May 5 – 31, 2020 showed a similar result. However, as the year progressed into June and July the NO₂ concentrations in 2020 began to resemble the concentration levels from 2019 indicating that less people were staying home than at the beginning of the year.

The Rider Trail data revealed a similar result as the Forest Park data showing that during the 2020 stay-athome period from March 23 - May 4, 2020 weekday NO_2 concentrations were consistently lower than the concentrations during the same period in 2019. Post stay-at-home concentrations from May 5 - 31, 2020 overall remained lower than the concentrations from 2019 while following a similar pattern based on the time of day. The weekday NO_2 concentrations from June and July of 2020 were more equal to the concentrations in 2019, but often the 2020 levels slightly exceeded the 2019 levels.

A similar comparison was made to examine ozone levels during and after the 2020 stay-at-home orders. Many factors affect ozone formation including precursor pollutant concentrations, solar radiation, ambient temperature, and relative humidity. The West Alton ozone monitor was chosen to compare data from 2019 to data from 2020. Observational analysis showed that during the stay-at-home order effective from March 23 – May 4, 2020 the ozone levels were overall lower during that time than the levels during the same period in 2019. Towards the end of April 2020 to May 4, 2020 the ozone levels started to become higher than the levels during the same time in 2019.

During the stay-at-home order from March 23 - May 4, 2020 the data from West Alton showed that the weekday average of the 1-hour ozone concentrations were lower at the beginning and end of the day than they were in 2019, but from about 7:00 am -5:00 pm on average the ozone levels in 2020 were almost the same as levels during the same time period in 2019. The similarity of the 2020 ozone levels to those in 2019 could be attributed to the fact that on average the 2020 weekday solar radiation level was higher than it was in 2019. Higher solar radiation levels contribute to higher levels of ozone being produced.

June 1, 2021 will be the start of a new Photo Chemical Assessment Monitoring (PAMS) project located at the Blair St. ozone monitor in the City of St. Louis. Some of the new data elements include: Hourly average speciated volatile organic compounds; three 8-hour averaged carbonyl samples per day on a 1 in 3 day schedule; true NO₂; and meteorological data-mixing height. This monitoring data will help us understand what ozone precursor pollutants are driving ozone formation during specific episodes/events. More air quality and monitoring information can be found at https://dnr.mo.gov/env/apcp/

3. 2020 Ozone Season

- East-West Gateway Council of Governments

For the Ozone Data Sharing project, ozone information is collected for a twelve hour period between 9:00 am – 9:00 pm every day during the season which begins on March 1 and ends on October 31. East-West Gateway (EWG) compiles ozone data from Missouri and Illinois and then produces weekly and monthly reports. The reports are sent to EWG partners at the Missouri Department of Natural Resources (MoDNR), Illinois Environmental Protection Agency (IEPA), and the Environmental Protection Agency (EPA) Region 7. Inside the EWG region there are five monitors in Missouri and four monitors in Illinois. Just outside of the EWG region there are six transport tracking monitors that provide information on the air entering and leaving the region.

The 2015 ozone standard is 70 parts per billion (ppb). An exceedance of that standard occurs when the eight hour average for a monitor is greater than 70 ppb. A violation occurs when the three year average of the fourth highest annual average for a monitor is greater than 70 ppb. During the 2020 ozone season there were nine exceedances recorded by the Missouri monitors and five exceedances recorded by the Illinois monitors for a total of 14 exceedances. Between 1999 and 2020 the five year running average of days with exceedances has continued to show a downward trend. The number of monitors has declined from sixteen to nine. Similarly, the three-year fourth highest average of ozone has continued to decline. However, for the St. Louis non-attainment area this average still remains above the 2015 standard.

Ozone concentrations are recorded as ppb values. The ppb values can be converted to numeric values on EPA's Air Quality Index (AQI) which utilizes a color scale to indicate the level of concern for the community's health in relation to the levels of air pollutants. For ozone, anything above 70 ppb, or 100 on the AQI scale, is considered unhealthy for sensitive groups and has a color code of orange. EWG takes the AQI scale and creates a calendar showing the health concern for each day over a month.

Another document produced by EWG is the record of days with incomplete data throughout the season. Incomplete data is when four or more hours at any one monitor do not have recorded values during the 12 hour time period. Causes for the incomplete data are provided by EWG partner agencies and can include bad weather, quality control checks, and power outages. The East-St. Louis monitor had 130 hours, or 0.45 percent of the total hours, of incomplete data which was the largest amount of all the monitors in 2020.

More information on ozone and air quality can be found on the EWG website at https://www.ewgateway.org/community-planning/environmental/air-quality/ozone-monitoring/

Other resources include the MoDNR website at https://dnr.mo.gov/env/apcp/ the IEPA website at https://dnr.mo.gov/env/apcp/</

4. Midwest Climate Summit

- Phil Valko, Washington University

If the twelve states that comprise the Midwest were a country, they would be the 5th largest greenhouse gas emitting nation on the planet. Global change starts with local action. The prevalence of industry and agriculture in the Midwest means that the region uses 20 percent more energy per dollar of GDP than the national average. Climate solutions are economic solutions. The Great Lakes contain 84 percent of North America's surface freshwater and provide drinking water to more than 40 million people. It's crucial to

protect Midwestern natural resources. Nearly 150 Fortune 500 companies are founded or headquartered in the Midwest. Together we can build a thriving green economy. The Midwest is home to one-third of all U.S. manufacturing operations. Together we can change the conversation on climate. More than 40 million Midwesterners experience air quality that fails to meet national ambient air quality standards. The Big Ten Academic Alliance, based in the Midwest, enrolls 600,000 students, employs 50,000 faculty, and conducts \$10.6 billion in research. Chicago, Cleveland, and St. Louis are amongst several of the nation's fastest-growing tech talent markets which means we have the opportunity to lead on climate action. The mission of the Midwest Climate Summit is to expand climate knowledge, accelerated climate action, and catalyze new partnerships that deepen expertise and develop a Midwestern response to the climate crisis. The vision is to launch the Midwest Climate Collaborative: A collective movement to accelerate climate action in the Midwest by creating evidence, catalyzing action, informing public knowledge and public policy, and developing the future leaders needed to sustain and expand this work. Washington University is partnering with other Midwest universities, tribal organizations and philanthropic groups to conduct this summit.

The summit is a two-part event taking place between fall 2020 and spring 2021. In the fall of 2020 there will be a "Think Tank" virtual series (talk, learn, discuss) that takes place over five Fridays: October 2nd, 9th, 23rd, and November 6th and 20th. Then, there will be a spring 2021 major Summit event, taking place on March 26 or April 9, where cross-sector organizations throughout the Midwest will reconvene to announce new tangible climate action, expanded commitments, and new cross-sector partnerships. There will be four different planning committees; Climate Action, Science and Research, Outreach and Engagement, as well as Teaching and Educating. A full list of the events, speakers, and dates can be found on the Summit website at https://midwestclimatesummit.wustl.edu/

5. American Fuel Report

- St. Louis Clean Cities Program

St. Louis clean Cities is participating in a 14 state electric vehicle (EV) branding initiatives (education and building relationships). Assisted in the submissions of four funding applications and two were successful. There is going to be a three year EV pilot program in North St. Louis. An EV and a charging equipment has been donated to agencies that serve the public in north St. Louis. Ameren is working on eight of 11 EV charging stations to be located in region.

6. Update Activities of the States

The Illinois Pollution control Board has accepted an aerospace coating control technology guidance regulation for the Metro East and has scheduled public hearings on December 10 and January 7, 2021.

At the August 27 meeting of the Missouri Air Conservation Commission (MACC) approved recommendation that the area around the Labadie Energy Center in Franklin County be redesignated to attainment of the 2010 sulfur dioxide (SO₂) standard. In early August EPA sent the Governor of Missouri a letter proposing to redesignate portion of St. Charles and Franklin Counties to attainment/unclassifiable from unclassifiable for the 2010 SO₂ standard. In July MACC adopted the revised the emissions fee structure.

Two monitors in the St. Louis area, Maryland heights and West Alton, appear to have violated the 2015 eight-hour ozone standard 70 ppb. Their three-year (2018-2020) design value (average) is 71 ppb. This information still has to be quality assured. The area is to attain the standard by August 3, 2021 based on 2018-202 monitoring data. Anticipate that the classification of the area will be "bumped up" by EPA from Marginal to Moderate at the end of the year. This will trigger several new State Implementation Plan requirements: Reasonably Available Control Technology (RACT) Demonstration; Reasonable Further Progress report; and Attainment Demonstration SIP.

Six application rounds for funding through the Volkswagen (VW) Trust have been completed. To date there been funds allocated for: seven buses (\$3.8 million); replacement of 29 government trucks (\$1.3 million); 47 non-government trucks (\$1.5 million); and one marine engine replacement (\$250,000). An application period was open through October 15, 2020 for electric charging stations using VW Trust funds. Applications are being reviewed now. MoDNR is also planning to update the Beneficiary Mitigation Plan (BMP) under the VW trust. MoDNR would like to review and amend the funding allocation plan. There will be a survey and a stakeholder meeting about updating the BMP. The Diesel Emission Reduction Act (DERA) program applications are available now.

7. Other Business

This afternoon at the OneSTL Sustainability Lab Zoom meeting the Energy and Emissions Working Group will be hosting a panel discussion on renewable energy focusing on work force development, clean energy and Ameren's integrated resource plan.

8. Adjournment

The next meeting will be January 26, 2021. There being no other business, the meeting was adjourned.