

Metropolitan Washington Air Quality Committee

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TECHNICAL ADVISORY COMMITTEE

Date: October 14, 2005

Time: **10 am - Noon**

Lunch will be served to members at noon.

Place: **COG Board Room, 3rd Floor**

MWCOG, 777 North Capitol St., NE, #300

Washington, D.C. 20002

Agenda

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- 10:00 1. Call to Order and Review of Meeting Summary (September 16, 2005)**
Chairman Tad Aburn, Maryland Department of the Environment
- 10:05 2. Attainment Modeling: Overview and Schedule**
Tom Ballou, Virginia DEQ, will provide an overview of the attainment modeling process for the Washington, DC region.
- 10:40 3. Control Measure Development: Update**
Jeff King, COG DEP, will provide an overview of recent activities related to the development of control measures for the 8-hour ozone and PM_{2.5} SIPs. He will discuss regional measures being considered by the Ozone Transport Commission.
- 11:00 4. Emission Inventory: Update**
Ram Tangirala, DC DOH, will provide an update on emission inventory issues.
- 11:20 5. PM Conformity: Update**
Mike Clifford, COG DTP, will provide an update on the conformity analysis for PM_{2.5}.
- 11:40 6. State and Local Air Agency Report**
- 11:55 7. Set Date for Next Meeting, Future Agenda Items, Adjourn:**
Next TAC Meeting: November 10, 2005

DRAFT

MWAQC Technical Advisory Committee Meeting Summary September 16, 2005 Noon to 2 pm. COG Room 1

Present:

Tad Aburn, Maryland Department of Environment
Tom Biesiadny, Fairfax County Department of Transportation
Rick Canizales, Prince William County Department of Public Works
Randy Carroll, Maryland Department of Environment
Diane Franks, Maryland Department of Environment
Maurice Keys, District of Columbia Department of Transportation
Kipp Coddington, Greater Washington Board of Trade
Barbara Hardy, Fairfax County Department of Environmental Services
Jeff Harn, Arlington County Department of Environmental Services
Alex Hekimian, Maryland National Capital Parks and Planning Commission
Doris McLeod, Virginia Department of Environmental Quality
Chris Meoli, Virginia Department of Environmental Quality
Jim Ponticello, Virginia Department of Transportation
Mary Richmond, Montgomery County Department of Environmental Protection
Howard Simons, Maryland Department of Transportation
Bill Skrabak, Alexandria Department of Environment Quality
Arnold Solomon, Mirant MidAtlantic
Kanti Srikanth, Virginia Department of Transportation
Jim Sydnor, Virginia Department of Environmental Quality
Ram Tangirala, District of Columbia Department of Health
Julie Thomas, National Park Service
Stan Tracey, District of Columbia Department of Health
Didian Tsongwain, Prince George's County
Flint Webb, Fairfax County Federation of Citizens Associations

Staff:

Rich Denbow, COG/DEP Consultant
Jen Desimone, COG/DEP
Jeff King, COG/DEP
Ron Kirby, COG/DTP
Sunil Kumar, COG/DEP
Eulalie Lucas, COG/DTP
Joan Rohlfs, COG/DEP
Daivamani Sivasailam, COG/DTP

Observers:

Charley Baummer, Metropolitan Washington Airports Authority
Julie Crenshaw, Air Quality Public Advisory Committee
Debra Jacobson, Professorial Lecturer in Energy Law/GWU Law School
Gary Koerber, U.S. Department of the Navy Regional Environmental Coordinator Region III

1. Call to Order

Mr. Aburn called the meeting to order at 12:10. The minutes of the July 8, 2005 meeting were approved with no changes.

2. SIP Development: Update

Joan Rohlf provided a report on the overall schedule and an update on emission inventory, attainment modeling, and control measure development. There are three major SIP deadlines pending: CAIR in September 2006, 8-hour ozone in June 2007, and PM_{2.5} in April 2008. The attainment deadlines for both 8-hour ozone and PM_{2.5} NAAQS are 2010. To enable regional coordination of PM SIP development, both the IAQC and MWAQC leadership have indicated that PM_{2.5} tasks could be added to the MWAQC scope of work. COG staff have prepared a proposed amendment to the work plan that adds three tasks with no additional funding requirements.

Control measure development work includes initiating a process to begin to develop a PM_{2.5} controls master list and to identify measures with co-benefits. The attainment modeling protocol has recently been revised. Episodes have been selected and 2009 inventories and scenarios should be available by November or the end of the year. Emission inventories developed for preliminary work need to be updated. Mobile source estimates will be updated using 2005 vehicle registration data and other new inputs. Point source projections are also to be evaluated for 2009. PM inventories will be developed using MARAMA and VISTAS estimates as a starting point. The Emission Inventory Subcommittee has met to agree on inputs for the mobile sector PM inventory. The TPB has recently completed a draft conformity determination for 8-hour ozone for the 2006-2011 TIP using the interim budgets. New 8-hour mobile inventories may be completed later this Fall.

Howard Simons asked if there were any additional costs for adding the three new PM tasks to the work scope. Joan Rohlf said that there would be no additional funding requests for this fiscal year to handle the new PM work. Tad Aburn suggested that a longer TAC meeting be scheduled in November/December to allow for deliberation and discussion of a wide range of SIP development issues, including emissions, attainment modeling, and control measures development. Flint Webb suggested that the TAC consider initiating the public involvement process soon.

3. Air Quality Trends and Ozone Season Summary: Update

Jen Desimone provided a report on the air quality trends and the ozone season summary for the Washington, DC region. There were no exceedances of the one-hour standard in 2005, and there has been a 33 percent decline in the maximum one-hour ozone concentration since 2002. The maximum one-hour ozone concentration was 119 ppb on August 11 at the Prince George's Equestrian Center monitor. There were 19 exceedances of the 8-hour ozone standard in 2005. The maximum 8-hour ozone concentration was 100 ppb on July 12, 2005 at the Rockville monitor. Except for August 12 and 13, PM_{2.5} has been code yellow or green for the entire season. There have been no exceedances of the 24-hour PM standard in 2005. Jen Desimone said that code orange does indicate an exceedance of the 8-hour standard. Kanti Srikanth suggested that a trend line be added to the graph of historical ozone concentrations for presentation to MWAQC. Sunil Kumar provided an analysis of the one forecasted code red day in 2005. August 13 was forecasted to be code red in the Washington, DC-MD-VA area. The forecasters had anticipated calm winds, however, at 2 pm upper level winds and scattered clouds began to rapidly reduce ozone concentrations in the region. Lower weekend emissions may also have contributed to the lower observed ozone concentrations.

Flint Webb and Jim Ponticello asked whether there was any indication on how the region is doing with regard to the PM_{2.5} annual standard. Tad Aburn asked that staff prepare an assessment looking at the rolling average, understanding that data are needed for the remainder of the year to get an accurate assessment.

Joan Rohlf's said that ozone Design Value data for 2005 are not yet available. Ram Tangirala suggested that it is important to also consider the designation-year design values. Doris McLeod suggested that MWAQC be told that meteorological conditions, local emission reductions, and reduced transport all played a role in reduced ozone concentrations during 2005. Kanti Srikanth suggested that some of the technical details be dropped from the presentation for MWAQC.

Jim Sydnor and Tad Aburn said that there is evidence that ozone transport may have been reduced, possibly as a result of controls installed at power plants under the NO_x SIP Call. Nighttime ozone concentrations at the Shenandoah monitor have been lower this year. EPA has recently released a report on trends in ozone transport that suggests transport may have been reduced by 20 percent. Flint Webb asked if Maryland has any data similar to the results at the Shenandoah monitor. Tad Aburn suggested that this topic be addressed in more detail at the next TAC.

4. 8-hour Ozone and PM Conformity: Update

Mike Clifford provided an update on the 8-hour ozone and PM_{2.5} conformity analysis. Results for the 8-hour ozone and wintertime CO analysis were presented. The TPB released for public comment a draft 8-hour ozone conformity analysis for the 2005 CLRP and 2006-2011 TIP. The approach for this year's analysis was similar to that used for last year's analysis (for the 2004 CLRP and 2005-2010 TIP). The determination was made based on comparing mobile emissions to the approved 1-hour budgets. This year, several new inputs were used: Round 7 Cooperative Forecasts were incorporated into the analysis in August; Transit Capacity constraint was modified; a new seasonal adjustment factor of 5 % was applied for summertime ozone to convert Average Annual Daily Traffic (AADT) to Average Annual Weekday Traffic (AAWDT); and new projects were identified and coded into the network. MOBILE6 and the Travel Demand Model Version 2.1D were used. The determination indicates that emissions from the proposed transportation plan will be below the interim budgets for all analysis years. The TPB intends to take action on this analysis in October. The draft PM_{2.5} conformity determination will be completed in the Fall 2005 as a supplement to this 8-hour analysis. The goal is to complete the PM determination for submission to FHWA no later than December. The Emission Inventory Subcommittee has met with DTP staff to address remaining questions on meteorological inputs, RVP, and diesel sulfur content.

In response to questions from Flint Webb, Mike Clifford said that 2002 vehicle registration data were used in the latest 8-hour ozone conformity analysis. MOBILE6 incorporates changes in fleet distribution through time. He also said that the impacts of BRAC are not reflected in this the Round 7 Cooperative Forecasts, but may be included in Round 7.1. Tad Aburn asked about the cause of the drop in emissions between 2010 and 2020. Jim Ponticello said that Tier 2 and the Heavy Duty Diesel Engine rules continue to provide benefits because of fleet turnover. Jim Sydnor asked if these numbers are to be used for the 8-hour ozone SIP. Mike Clifford said that new estimates will be derived for the SIP based on updated 2005 vehicle registration data and the VIN decoder efforts. There will be more information on heavy trucks. There will also be changes to the meteorological inputs.

It was agreed that the Conformity Subcommittee will review the draft results and prepare a comment letter to TPB for MWAQC action.

5. SAFETEA-LU and CMAQ: Update

Ron Kirby provided a report on SAFETEA-LU and CMAQ with special emphasis on planning for diesel initiatives in the Region. Recent legislation has expanded authorization for States to use CMAQ funds to reduce emissions from non-road diesel equipment. COG DTP may initiate a study to develop non-road diesel equipment inventories. In the short term the region may focus CMAQ efforts on mobile equipment in the public sector. Structure will be needed to deal with private companies. Policy guidance is required to address how emission reductions from non-road equipment will be credited. The EPA is developing a

list of eligible technologies. Howard Simons clarified that the non-road funds would only be applicable to transportation construction projects.

Ron Kirby said that the Transportation Bill also modifies other aspects of the conformity process, including timing of when conformity determinations are required, frequency of plan updates, TCM substitutions, out year of plans, and environmental, land use, and safety issues that must be addressed through the interagency consultation process. There is also now a 12 month grace period if a deadline is missed before a lapse would occur, however, this is not applicable to the current conformity analyses for the 2005 CLRP.

6. Potomac River Power Plant: Update

Jim Sydnor and Arnold Solomon provided an update on recent actions at the Potomac River Power Plant. The Potomac River Power plant was shutdown after air modeling results indicated potential NAAQS violations due to downwash. The air modeling was conducted under the requirements of a Consent Decree resulting from a Notice of Violations for emitting NO_x in excess of NO_x allowances in 2003. The key reasons the modeled violations exist are low stack height and proximity to an apartment building. Arnold Solomon also said that the modeling inputs were conservative. The owner of the plant, Mirant, is working to develop operational and engineering proposals to bring the plant back on-line. Solutions being considered include increasing stack height, increasing stack gas temperatures, injecting TRONA (Hydrated Sodium Bicarbonate Carbonate) to reduce SO₂ emissions, and operating in the cycling mode. Mirant is also testing different types of low sulfur coals. Scrubbers cannot be installed at the facility because the facility site is too small. Arnold Solomon explained that the District of Columbia Public Service Commission has petitioned FERC to require the plant to remain in operation due to reliability concerns. PEPCO and PJM also are concerned about reliability in the event that the primary transmission lines servicing the District of Columbia go off-line.

Alex Hekimian asked about the prevailing wind direction and also whether stack height was the primary reason for the modeled violations. Arnold Solomon said that wind direction varies by time of year and that stack height is the main issue. Mary Richmond asked whether Mirant has looked at this issue for other plants in the region. Arnold Solomon said that all of the other plants in the region have 700 foot stacks. In response to a question from Flint Webb, Arnold Solomon said that Mirant has not installed environmental monitors on the apartment building but has considered this option. Stanley Tracey asked why Mirant chose to shut the plant down and what was being done to substitute for the lost power. Arnold Solomon said that the Consent Decree required the modeling study. Upon review of the results, Mirant determined that they could not continue to operate the plant under normal conditions and also comply with the NAAQS and Virginia DEQ requirements. Currently substitute power is available on the PJM grid. The reliability issue is not one of production but of transmission.

Bill Skrabak said that the City of Alexandria has also conducted air modeling for this plant. The results indicated that local pollutant concentrations resulting from the plant emissions are 14 times the NAAQS. The City also modeled air toxics and determined that there may be issues with HCl and HF_l. The City's position is that public health cannot be jeopardized for power reliability. The City has decided that the plant is a non-complying use under the current land use and zoning requirements. Bill Skrabak said that the reliability issues can be addressed by upgrading the high voltage lines servicing the region. A decision is pending at FERC.

Julie Thomas asked about the contractors hired to handle air modeling. ENSR International handled the modeling for Mirant, and Aero Engineering Associates handled modeling for the City of Alexandria. Virginia DEQ also plans to model air toxics.

8. State and Local Air Agency Report

Jim Sydnor reported that in Virginia, regulations to implement CAIR and CAMR are being developed. A state workgroup includes members from this region, including Julie Crenshaw, Debra Jacobson, and Barbara Hardy. Currently, under state law, mercury trading is not allowed in Virginia, legislation is pending. Stanley Tracey said that the District has signed an MOU with mayors to develop a Greenhouse Gas Inventory and Action Plan. Mary Richmond said that next week Montgomery County will be holding workshops with auto repair shops. Tad Aburn reported that there have now been two meetings of the stakeholders group in Maryland. MDE also hopes to propose a distributed generation rule by the end of the year. Barbara Hardy reported that Fairfax County is trying to get a set-aside approved to facilitate credits for Energy Efficiency and Renewable Energy (EERE) measures in the Innovative Bundle.

9. Set Date for Next Meeting, Future Agenda Items, Adjourn: October 14, 2005

The TAC will meet next on October 14, 2005 from 10 am to noon. There being no further business, the meeting was adjourned at 2:15 p.m.