

Metropolitan Washington Air Quality Committee

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TECHNICAL ADVISORY COMMITTEE

Date: February 11, 2005

Time: **10:00 a.m. – 12:00 NOON**

Lunch will be served at 12:00 pm

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

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

Washington, DC 20002

Agenda

- 10:00 1. Call to Order and Review of Meeting Summary (January 21, 2005)**
Chairman Tad Aburn, Maryland Department of the Environment
- 10:10 2. Dulles Airport EIS Emissions: Update**
Charley Baummer and Walter Seedlock will provide a report on emissions and emission control measures at the region's airports.
- 10:40 3. Control Measure Development: Report**
Jeff King, COG/DEP, will give a report on analysis and documentation for each of the priority measures for the 8-hour SIP, including cost effectiveness.
- 11:10 4. Proposed TPB Scope of Work for 8-hour Conformity**
Mike Clifford, DTP will provide a summary of TPB's proposed scope of work for handling conformity for the 2005 CLRP and 2006-2011 TIP.
- 11:15 5. Proposed 2005-FY2006 MWAQC Work Program and Budget**
Joan Rohlf, COG/DEP, will present the proposed budget for recommendation to MWAQC.
- 11:40 6. State and Local Air Agency Report**
Tad Aburn: OTC Model Rule: Status Report
- 11:50 7. Other Business**
- 12:00 8. Set Date for Next Meeting, Future Agenda Items, Adjourn:**
Next TAC Meeting: March 11, 2005

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**MWAQC Technical Advisory Committee
Meeting Summary
January 11, 2005
10:00 am – 12:00 pm
COG Room 1**

Present:

Tad Aburn, Maryland Department of Environment
Kambiz Agazi, Fairfax County Department of Environmental Services
Rick Canizales, Prince William County Department of Public Works
Randy Carroll, Maryland Department of Environment
Amy Costello, Virginia Department of Transportation
Diane Franks, Maryland Department of Environment
Victoria Greenfield, Charles County
Jeff Harn, Arlington County Department of Environmental Services
Alex Hekimian, Maryland National Capital Parks and Planning Commission
Matthew Jalali, District of Columbia Department of Transportation
Teresa Lin, Virginia Department of Transportation
Doris McLeod, Virginia Department of Environmental Quality
Chris Meoli, Virginia Department of Environmental Quality
Jim Ponticello, Virginia Department of Environmental Quality
Mary Richmond, Montgomery County Department of Environmental Protection
Howard Simons, Maryland Department of Transportation
Kanti Srikanth, Virginia Department of Transportation
Ram Tangirala, District of Columbia Department of Health
Stanley Tracey, District of Columbia Department of Health
Didian Tsongwain, Prince George's County Department of Environmental Resources

Staff:

Mike Clifford, COG/DTP
Jen Desimone, COG/DEP
Jeff King, COG/DEP
Eulalie Lucas, COG/DTP
Joan Rohlf, COG/DEP

Observers:

Charlie Baummer, Metropolitan Washington Airports Authority
Tom Biesiadny, Fairfax County Department of Transportation
Bill Butler, Mirant
Julie Crenshaw, AQPAC
Gary Koerber, U.S. Department of the Navy Regional Environmental Coordinator Region III
Tim Nutter, Northern Virginia Transportation Alliance
Walter Seedlock, Metropolitan Washington Airports Authority

Presenters:

Steve Arabia, Mirant

David Cramer, Mirant
Michael Woodman, Maryland Department of the Environment

1. Call to Order

Tad Aburn was introduced as the new Chair. Mr. Aburn called the meeting to order at 10:00 a.m. The minutes of the December 10, 2004 meeting were approved with no changes. Mr. Aburn said this and future agendas will include updates from the local government air agencies and requests for future agenda items.

2. Mirant: The Next 5 Years in Pollution Control

Steve Arabia and David Cramer, Mirant, gave a report on the plans to install multipollutant controls at Mirant facilities in the region. Mirant has developed a plan for installing controls to meet the requirements of the 2004 Consent Decree. The plan must be approved by the bankruptcy court. There are annual and ozone season caps on all coal-fired units as well as system-wide emission limits. To meet the 0.15 lb NO_x/mmBtu system-wide cap, nearly all units in the Mirant system will need controls. Selective Catalytic Reduction (SCR) pollution controls (about 90% reduction) are planned for installation at the Morgantown plant. Separated overfire air pollution controls (about 30% reduction) are being installed at the Potomac River plant. Selective Auto Catalytic Reduction (SACR) units (approximately 50% reduction) are being installed at the Chalk Point plant. Mirant will report back to TAC as they make additional decisions on how to control specific units.

David Cramer said that SOFA stands for separated over-fire air, which involves blowing air into the combustion chamber above the flames. SOFA doesn't require ammonia or any other reagent to achieve a NO_x reduction.

Howard Simons asked how Mirant decided on its pollution control strategy. Steve Arabia said that the driving factors are unit size, physical constraints, and system-wide emissions limits. The coal units at the Potomac River plant are 100 MW each and are in a relatively site limited facility, making it infeasible to install SCRs. By comparison, the units at Morgantown are 600 MW each. They have started the bid process for installing SCRs on these larger units. David Cramer said that Mirant will need incremental reductions over time to meet the declining cap required in the Consent Decree. SOFA can be installed in one year. SCRs take about 3 to 4 years to install. Steve Arabia said that Mirant plans to spend \$200 million to comply with the Consent Decree. Compliance with PM fine requirements will require additional investment.

Jeff Harn asked about the scope and timing of the downwash study. Steve Arabia said that as part of the Consent Decree Mirant is required to evaluate ambient air concentrations in a 2 km radius for both NO_x and mercury. The research protocol has been submitted to VA DEQ and to the City of Alexandria for evaluation. Stanley Tracey asked that Mirant also provide a copy of the downwash study protocol to the DC Department of Health.

In response to a question about the potential to cycle units off during code red days, Steve Arabia said that such an approach may not help improve air quality in the Washington, DC-MD-VA nonattainment area. David Cramer said that typically on code red days the PJM wants all of the units on to meet high energy demand. Tad Aburn said that the low level jet area and mobile sources have the most significant effect on the nonattainment area's air on code red day.

Reducing power plant emissions in Alexandria will probably have more of a beneficial effect on the air in Baltimore.

Steve Arabia said that Mirant's position on multipollutant legislation is that it is important that such an approach be adopted regionally to avoid competitive disadvantages for electricity generators in particular states. At this point, control of CO₂ is not technologically feasible.

Julie Crenshaw asked if Mirant is planning for a shutdown given the City of Alexandria's recent zoning actions related to the Potomac River power plant's permit. She also asked if Mirant is studying the health impacts of emissions from the Potomac River power plant, especially considering the stack heights. Steve Arabia said that Mirant is working to resolve issues raised by Alexandria's recent actions to change the zoning for the plant. Mirant understands that there may be more than seven years before a plant shutdown, considering zoning laws and impacts on recoup of investment. He also said that Mirant is commissioning the downwash study.

3. New Research on Night-time Transport via the Low Level Jet

Mike Woodman, MDE, and Charles Piety, University of Maryland, gave a report on research into transport of ozone via low level jet streams. The low level jet is an atmospheric phenomenon created by air temperature gradients caused by differentials between air cooling over land and water. Air over mountains cools more than air at the same elevation near the coast. This temperature gradient induces a southerly wind a few hundred meters above the ground, just above the nocturnal inversion. The lower level jet streams usually develops when weather patterns conducive to high ozone occurs. The low level jet contains both ozone and ozone precursors. Measured ozone concentrations in the low level jet are typically 60-80 ppbv but concentrations as high as 80-110 ppbv have been measured. There is an effort to update air quality models to accurately simulate this aspect of transport.

Tad Aburn said that this is new science that supports the need for more effective regional controls. He said that the research shows that transport from the west is typically ozone only, while the low level jet streams transport both ozone and ozone precursors. The low level jet extends to the southwest down to Georgia. In response to a question from Kanti Srikanth, Tad Aburn said that other states and EPA are involved, particularly in the area of model improvement.

Eulalie Lucas asked if there are estimates of how much pollution is local versus regional. Tad Aburn said there is no perfect way to assess, but that generally 30-40% is westerly transport, 10-20% is local, 10-20% is short range transport, and 10-20% is through the low level jet.

4. SIP Status: Update

Joan Rohlf provided members with an update on the SIP planning status. On January 12, 2005, EPA proposed to approve most of the items in the Severe Area SIP, including the voluntary measures. The remaining outstanding approval is the attainment demonstration. EPA phase II implementation guidance is still pending. It is important that EPA release guidance soon on Reasonable Further Progress and attainment demonstration requirements. Work efforts are moving ahead without the guidance based on assumptions. EPA is still taking comments on the phase I guidance of the 8-hour ozone standard (e.g., backsliding, revocation of 1-hour standard).

On January 5, 2005, EPA published the PM_{2.5} designations, which will become effective on April 5. Conformity for PM 2.5 must be demonstrated and approved by April 6, 2006.

Ram Tangirala asked when TAC would begin work on PM2.5. Tad Aburn said that some of the control measures being evaluated are PM measures. MWAQC has not yet been certified to work on PM2.5 SIP planning.

5. Control Measure Development: Update

Jeff King gave a summary of the workgroup's review of the preliminary list and efforts to rank potential new control measures for the 8-hour SIP.

6. 8-hour Conformity Analysis Comment Letter: Update

Jeff King reported on the final MWAQC comment letter on the 8-hour conformity determination. He said that the letter developed by the TAC Conformity Subcommittee and approved by TAC and the MWAQC Executive Committee was transmitted to TPB. It recognized that the large gap between the estimated 2010 emissions and the mobile budget is temporary given that new 8-hour mobile budgets must be developed which will likely be lower than the existing 1-hour budgets. The letter also urged maintenance of all existing mobile and non-mobile measures, which will be needed to meet the 8-hour standard.

Kanti Srikanth said that TPB did receive the letter and approved the 8-hour conformity determination for 2010. The 2010 analysis will be added to the existing 1-hour analysis for other milestone years for submittal to FHWA in the next two weeks. He said board members discussed the interim budgets and the pending new 8-hour budgets.

Tad Aburn asked if there would be a value in developing and beginning to discuss strawman 2010 mobile budgets, for example by assuming a need for a 20% reduction. Kanti Srikanth replied that such an approach might add value.

7. State and Local Air Agency Report

Mr. Stanley Tracey said the District Department of Health has nothing to report. Mr. Ponticello reported on bills being introduced in the state legislature. One addresses CAL LEV II, requiring that DEQ research the measure. Two competing bills address the HOV hybrid exemption. Another is a multipollutant initiative.

Howard Simons said that Maryland has some concern over implementing an HOV hybrid vehicle exemption. Kanti Srikanth said that there is a task force looking at HOV demand versus capacity. Kanti will share the report with the group in late January. Jim Ponticello and Ram Tangirala briefly discussed the potential to estimate the emission benefits of more rapid introduction of hybrid vehicles.

Tad Aburn reported that Maryland also expects CAL LEV II and multipollutant legislative proposals. He said the AIMS rule has yet to be challenged in Maryland. Delaware successfully defended a legal challenge to their rule.

Mary Richmond reported that Montgomery County is expanding their pollution prevention program to achieve additional VOC reductions. The focus initially will be on automobile repair facilities and drycleaners. They will also be preparing a newsletter for residents that should be available in the next couple of months.

8. Other Business

Joan Rohlfs presented a process for nominating and selecting stakeholders to TAC. She said that with the change in the MWAQC bylaws, there will be up to 4 non-voting stakeholders on TAC. She wants approval of the process so that the nominations can proceed. The process was approved. Stakeholder nominations to TAC are due by February 25, 2005.

For future agenda items, Mary Richmond asked that a presentation be given on the OTC multipollutant initiative. Ram Tangirala asked that a presentation be given by the airports and railroads, similar to the presentation by Mirant today.

9. Set Date for Next Meeting and Adjourn: February 11, 2005

The TAC will meet next on February 11, 2005 from 10 a.m. to 12 p.m. There being no further business, the meeting was adjourned at 12:00 p.m.