Air Quality Management Subcommittee
September 12, 2006
Arlington, VA

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All materials included should be considered DRAFTS. These drafts are meant to guide discussions of the AQM Subcommittee and do not represent final decisions or opinions made by the EPA, the CAAAC, or the AQM Subcommittee.

Air Quality Management Subcommittee Meeting
September 12, 2006
Meeting Agenda

8:30-8:45	Introductions and Welcome	Greg Green
8:45 – 9:45	Air Quality Management Plans Objective: To reach agreement on general concepts and to seek initial input on the draft framework and incentives writeup	Brock Nicholson and Dan Johnson
9:45-10:00	Break	
10:00-11:00	Air Quality Management Plans cont.	
11:00-12:00	Recommendations for Tools Development Objective: To reach agreement on 2-3 tools to be further developed for inclusion in the final report and to discuss how we complete that work	Bob Wyman and Debbie Wood
12:00 -1:00	Lunch	
1:00-3:00	Discussion of Boundaries and Associated Requirements Objective: To reach agreement on general concepts and then to seek initial input on the specific requirements	Jeff Underhill
3:00-3:15	Break	
3:15-4:15	Revised Report Outline Objective: To seek input on the revised outline	Jeff Whitlow
4:15- 4:30	Schedule for future meetings	Greg Green
4:30	Adjourn	

For participants not able to attend in person, there is a conference line for the meeting
Conference Number   866-299-3188
Conference Code   9195415369

HOTEL INFORMATION

Marriott Crystal City at Reagan National Airport
1999 Jefferson Davis Highway
Arlington, VA 22202

Air Quality Management Plan Framework

Structure & Component Options

AQM Subcommittee Meeting

Washington, DC

Topics

- **The AQMP Concept**
  - **What it is, who is involved, and why they are doing it**
- **Framework and Elements**
  - **Example of what an AQMP might look like**
  - **Structure & component <u>options</u>**
- **Benefits and Impacts**
  - **What's different about the AQMP?**
  - **What's the appeal of it to states, local governments and MJOs?**
- **Next Steps**

The AQMP Concept

- A means of transitioning to multi-pollutant approaches for managing air quality
- <u>Developed at the discretion of the state and/or local governments and/or a multi-jurisdictional organization</u>
- Comprehensive, integrated and interactive planning across a broad spectrum of air issues and pollutants among environmental, energy and transportation entities at several levels of government
- May include, at the entities' option, a focus on criteria pollutants, regional haze, toxics, climate change and other state/local/regional issues important to the geographic area
- A way of communicating to the public, industry and stakeholders on the full scope of air issues that government entities and their partners are taking action on

Framework and Elements – Part I

- **Executive Summary**
  - Presents philosophy and direction
  - Summarizes key components and discusses how they will be implemented
- **Overview**
  - Explains concept of AQMP & provides context for current plan vs the past
  - Discusses how plan developed, who involved and process
  - Discusses benefits and impacts of an AQMP
- **Air Quality Requirements & Goals**
  - Purpose – *why are we doing an AQMP?*
  - Challenges
  - Current requirements & goals addressed in the AQMP (both Federal and state/local)

Framework and Elements – Part II

- **Air Quality, Health & Ecosystem Effects**
  - Explains current air quality issues in the area covered by the plan – *what are the problems in the area?*
  - Includes both criteria and non-criteria pollutants
  - Discusses health effects and other issues for all pollutants covered by the plan
- **Air Emissions Assessment**
  - Provides a picture of where the area is and may be in terms of its current and future emissions inventories from all sources – *what does it look like now?*
  - Discusses how emissions will be monitored, what modeling has been done, and what/how information is being provided to stakeholders and the public
- **Strategy for Managing Emissions from New & Existing Sources**
  - Outlines the various control strategies and other measures the area is undertaking in the stationary, area and mobile sectors – *what are we doing about it?*
  - Covers all pollutants addressed by the plan

Framework and Elements –Part III

- **Future Air Quality**
  - Provides the future air quality picture based on implementation of the strategies and measures in the AQMP – *where do these actions get us?*
- **Implementation**
  - Explains how the organizations involved in the AQMP will execute the programs and strategies outlined in the AQMP – *how will we get this done?*
- **Looking Beyond Current Requirements**
  - Provides a forward look at air quality requirements on the horizon and how the area is approaching those issues
- **Glossary & Appendices**
  - Detailed technical support documents and information

Benefits & Impacts of an AQMP

- Optimizing mix of control measures for multiple pollutants and taking interactive effects into account
- Potentially reaching attainment in a more efficient and cost-effective way, while getting greater overall reductions of pollutants
- Making better use of limited Federal, State, local and Tribal resources, and those of the regulated community, for improving air quality
- Making it easier and less expensive for potentially affected sources to plan installation of controls and/or process changes, rather than having to install them in a piece-meal fashion.
- Provides a regular mechanism for presenting the public with a comprehensive picture of what is happening with the air quality where they live
- Explains how agencies at all levels of government are working together and with industry and other stakeholders to protect the public health and ecosystems

Discussion & Next Steps

- **Suggestions for taking the AQMP concept forward:**
  - Anticipate questions and concerns from states and others & develop responses
  - Outline the benefits to states, locals and/or other entities for doing an AQMP
  - Develop joint pilot program with EPA
  - Other thoughts???

Preface to the Air Quality Management Plan Framework

The concept of a comprehensive air quality management plan, or AQMP, is to help EPA, States, local governments, and Tribes to transition from a single pollutant approach to an integrated, multiple pollutant approach that is more effective, efficient and timely in managing air quality. The AQMP would be developed at the discretion of the State or local government, or a multi-jurisdictional organization that is responsible for dealing with air quality issues in a geographic area. It is a plan that would be created at a state, local or regional level, involving many entities, outlining how the jurisdiction or jurisdictions intend to address air pollutants in an integrated manner, including attainment and maintenance of the NAAQS, sector-based reductions of criteria pollutants to protect the public health, improvements for visibility in Class I areas, strategies for reducing hazardous air pollutants (HAPs), ecosystem protection, and local environmental issues within a State.

Developing an AQMP is envisioned as a broad process that reflects significant interaction between the energy, transportation and environmental entities at the State, local and regional levels as appropriate. For a true multi-pollutant approach, all issues that relate to air quality, including energy policy, climate change, transportation, and land use would potentially be addressed in the AQMP. The goal would be to create a comprehensive plan that is multi-pollutant based, addresses all of the critical air pollution issues within a State, focuses on other important air quality goals in the geographic area, sets priorities, and provides an overall plan for moving forward with the strategies outlined in the plan.

The framework that follows provides a proposed structure and component options that a State, local government and/or multi-jurisdictional organization may consider using when attempting to develop an AQMP. The goal is to provide a template for States, local agencies and multi-jurisdictional organizations to work from, and as such covers both regulated and unregulated pollutants, since many jurisdictions are developing policies and programs affecting both. The framework is intended to be both comprehensive and flexible, i.e., it endeavors to provide a broad variety and scope of issues and topics that an entity may want to consider addressing in an AQMP, with the understanding that the entity creating the plan may choose to include or exclude any topic or issue as is appropriate for the geographic area covered by the plan. At a minimum, it is anticipated that a State government electing to prepare an AQMP will include those components relevant to the NAAQS and criteria pollutants that are to be addressed in their state implementation plan for meeting federal Clean Air Act requirements, and any pertinent state air quality requirements.

Though the current Clean Air Act currently takes a single pollutant approach for criteria pollutants (through the NAAQS), and a source sector-based approach to HAPs (through the NESHAPs), a multi-pollutant approach to air quality management like the AQMP could offer many advantages. These may include:

1. reaching attainment in a more cost-effective, efficient way, while getting greater overall reductions of pollutants;

2. optimizing the mix of control measures for multiple pollutants, thus avoiding control measures that, while beneficial in reducing one pollutant, may result in increases in others;
3. making better use of limited Federal, State, local, and Tribal resources, and those of the regulated community, for improving air quality;
4. providing a more predictable and manageable air quality planning process than the current SIP process; and,
5. making it easier and less expensive for potentially affected sources to plan installation of controls and/or process changes, rather than having to install controls in a piece-meal fashion.

In addition, the AQMP provides a regular mechanism for providing the public with a comprehensive picture of what is happening to the air quality where they live and how the State agencies, local governments and multi-jurisdictional organizations are working together and in coordination with their Federal partners to protect the public health and ecosystems. Moreover, the AQMP helps to highlight to the public and government decision-makers where there may still be significant air quality issues that need to be addressed and help to raise the profile of these issues for consideration for further action.

AIR QUALITY MANAGEMENT PLAN (AQMP) FRAMEWORK
Structure and Component Options

EXECUTIVE SUMMARY
The State of the Air Quality in _____
      Is Air Quality Improving – What Progress Have We Made?
      What's Working?
      What Areas/Issues Need Further Attention
State/Area Philosophy for Attaining Air Quality Goals (NAAQS and/or other issues in addition to criteria pollutants)
Key Elements and Highlights of this Plan
Summary of Implementation Actions, Issues and Potential Air Quality Outcomes/ Improvements

1. OVERVIEW
Introduction
The Substance of the AQMP
      What are the elements/components of the AQMP
      How do they tie together and what do they tell us about our air quality
      Who was involved, what were their roles, and how it was developed
      Format of This Document
What are the Benefits and Impacts of the AQMP
      Measuring progress in improving air quality and sustainability
      Informing the public and business community
      Identifying issues that still need to be addressed and/or are on the horizon
What Are the Applicable Key Federal and State Requirements That This Plan Addresses?
How Has the Emissions Inventory Changed in the Past 5 Years?
Has the Overall Control Strategy for Attaining the NAAQS Changed Significantly?
What Other Issues and Requirements Are Addressed in This Plan (outside of the NAAQS and criteria pollutant requirements)?
What Considerations Have Been Made for the New Federal Standards for Particulate Matter and Ozone (or others as proposed by EPA)?
What are the Challenges of Attainment ?
Has the Attainment Projection Changed for Federal or State Standards?

2. AIR QUALITY REQUIREMENTS AND GOALS
Purpose of the AQMP
Challenges for Air Quality Management (summary of J. Bachman piece)
      Continuing PM and ozone nonattainment between now and 2020
            Attaining/maintaining current & meeting tighter standards in long term
            Dealing with PM speciation – which are most toxic, have most serious effects
      Managing ongoing air toxics problems
            High risk species and environmental justice concerns

Developing strategies to deal with "hot-spots"
Understanding the connection between climate change and air quality
Understanding and managing ecosystem impacts
Federal Clean Air Act Requirements and Other Clean Air Goals
Ambient Air Quality Standards
PM10 Planning Requirements
Current PM10 Requirements
Ozone Planning Requirements
Post-1996 VOC rate-of-progress requirements
Ozone Attainment Demonstration
Contingency Measures
Average Vehicle Occupancy Requirements (AVO)
Carbon Monoxide Attainment Demonstration
Nitrogen Dioxide Maintenance Plan
Transportation Conformity Budgets
PSD and increment protection
State/local air quality goals (in addition to federal requirements)
Constraints in Achieving Goals
Setting
Emission Sources
Population
Control Efforts
History
Impact of Control
Progress in Implementing the AQMP
20XX AQMP
Federal Clean Air Act Planning Requirements for criteria pollutants
General Requirements
CAA Planning Requirements Addressed by the 20XX AQMP
State Law Requirements
Plan Effectiveness
Emission Reductions
Population Exposure
Control Measure Ranking
Toxic air pollutants
Ecosystem protection, including visibility, climate change, and other issues

3. AIR QUALITY, HEALTH AND ECOSYSTEM EFFECTS
A. Background & Comparison to Other U.S. Areas
B. Current Criteria Pollutant Concerns
Ozone (O3) Specific Information
Health Effects
Air Quality
Transport Issues
Carbon Monoxide (CO) Specific Information
Health Effects

Contributions by Responsible Agencies
The Impact of Growth
B. Monitoring strategy
C. Modeling (including regional-scale provided by RPOs)
D. Communications strategies
      Public advisories
      AQI

5. STRATEGY FOR MANAGING EMISSIONS FROM NEW AND EXISTING SOURCES

A. Criteria pollutants
Introduction
Overall Attainment and Maintenance Strategy
      Designing the Overall Strategy
      20XX AQMP Control Measures
Stationary Control Measures (can be organized by state, local or multi-jurisdictional entity that is developing the measures, if useful),
      Examples:
      Stationary Source Control Methods and Associated Emission Reductions
      Coatings and Solvents
      Petroleum Operations and Fugitive VOC Emissions
      Combustion Sources
      Fugitive Dust Sources
      Miscellaneous Sources
      Compliance Flexibility Programs
      District's Mobile Source Control Measures
Transportation Strategy and Control Measures (can be organized by state, local or multi-jurisdictional entity that is developing the measures, if useful)
      Transportation Control Measure Development
      Transportation Control Methods Objectives
Mobile Source Control Measures (can be organized by state, local or multi-jurisdictional entity that is developing the measures, if useful)
      Examples:
      Set Technology-Forcing New Engine Standards
      Reduce Emissions from the In-Use Fleet
      Require Clean Fuels, Support Alternative Fuels and Reduce Petroleum
      Dependency
      Work with U.S. EPA to Reduce Emissions from Federal and State
      Sources
      Pursue Long-Term Advanced Technologies Measures Summary
Voluntary and Innovative Control Measures
      For Stationary Sources
      For Mobile Sources
      For Area Sources
Section 182(e)(5) Long Term Strategy (for Extreme Non-attainment Areas)
      State's Long-Term Strategy

Local Agencies' Portion of Long-Term Strategy (as applicable)
Federal Responsibility Under Long-Term Strategy
Emissions Contribution
Federal Actions to Meet Emission Reduction Targets
Examples of Potential Strategies
Accelerate Penetration and Use of Existing Technologies
Demand-Side Strategies
Accelerated Retirement of Older High-Emitting Vehicles
Clean Communities Concept
Smog Check Improvements
Remove Disincentives on Voluntary Measures
Expand Fleet Rules to Private Fleets
Modify Stationary Source Monitoring Requirements
Add Flexibility to Current Programs
Educational Programs
Control of Emissions from Port Operations
Emissions Bubbles at Ports and Airports
Consumer Products
Examples of Advanced Technologies
Fuel Cells/Advanced Battery Technologies
Electric & Hybrid-Electric Heavy-Duty Vehicles
Marine Vessels and Portside Equipment
Advanced Engine and Aftertreatment Technologies
Renewable Power Generation Technologies
Advanced Low-VOC Technologies
Examples of Innovative Control Approaches
Market Incentive Programs
Reactivity-Based Controls
Localized Controls
Public Awareness and Education Programs
State's (or AQMP Entity's) SIP Emission Commitment
SIP Emission Reduction Tracking
Reductions from Adopted Rules
Reductions from State's (AQMP Entity's) Stationary Control Measures
Overall Emission Reductions
PSD and increment protection
Contingency measures (if necessary)
B. Toxic air pollutants
Introduction
Co-benefits
Overall strategies/goals
Benzene
New sources
Diesel particulates
Etc
C. Ecosystem protection

Introduction
Visibility
Class I area AQRV protection
Greenhouse gases??

6. FUTURE AIR QUALITY

Introduction
Modeling Approach
      Particulate matter
            AQMP Modeling Approach Ozone
      Carbon Monoxide
      Visibility
Future Air Quality
      Particulate matter
      Ozone
            Control Strategy Impacts
      Carbon Monoxide
      Toxics
      Visibility
      Greenhouse gases
Summary and Conclusions
Basin Emissions Carrying Capacity (Emissions Budget)
Projected Emission Trends Through 2010
NATA trends
Visibility trends

7. IMPLEMENTATION

Introduction
Responsible Agencies
Control Measures
      Control Measure Ranking
      Federal Agencies
      State
      Local agencies/Multi-jurisdictional organizations
      Transportation Control Measures
            Local Governments and MJOs
            Congestion Management Program (CMP) Linkage to the AQMP
      Technology Advancement
            Example: Clean Fuels Program - Technology Advancement Plan
                  Alternative Fuels - Incentives Program
                  Alternative Fuels - On-Road
                  Alternative Fuels - Infrastructure
                  Fuel Cell Technologies
                  Electric and Hybrid Electric Technologies
                  Alternative Fuels - Off-Road Applications
                  Stationary Sources

Implementation Support Activities
      State's Assistance and Outreach Programs
      Business Assistance
      Locality and MJO Assistance
Monitoring

8. FUTURE AIR QUALITY - SPECIAL AREAS OF CONCERN
Introduction
Statement of Problem
      Regulatory Requirements
      Population Growth
      Pollutant Transport
      Trends in Ozone Air Quality
Attainment Issues/Demonstration
Rate-of-Progress Issues/Requirements
Summary of State/LocalPlan(s)
      Introduction
      Background
      State Implementation or Other Plan

Conclusions

9. LOOKING BEYOND CURRENT REQUIREMENTS <this will be quite fluid, so the list below will be outdated soon>
Introduction
Uncertainties Associated with the Technical Analysis
A First Look at the Year 2020 Ozone Air Quality
New Federal Air Quality Standards for Ozone and Fine Particulates (and/or others)
What are the Health Concerns?
Ozone
Particulate Matter
What is the New Federal Ozone Standard?
What are the New Federal PM Standard?
Implementation of the New Federal Standards
Assessment of the New Federal Standards
Ozone
Particulate Matter
New State PM Air Quality Standards

GLOSSARY

APPENDIX I-A APPLICABLE STATUTES AND REGULATIONS

APPENDIX I-B FEDERALLY ENFORCEABLE PROVISIONS OF STATUTES AND REGULATIONS

APPENDIX II HEALTH EFFECTS

APPENDIX III CURRENT AIR QUALITY

APPENDIX IV BASE AND FUTURE YEAR EMISSION INVENTORIES

APPENDIX V-EMISSIONS MANAGEMENT STRATEGY

APPENDIX V-A PROPOSED 20XX STATE AND FEDERAL ATTAINMENT AND MAINTENANCE STRATEGY FOR THE STATE IMPLEMENTATION PLAN
- STATIONARY AND MOBILE SOURCE CONTROL MEASURES
- REGIONAL TRANSPORTATION STRATEGY AND CONTROL MEASURES
- MODELING AND ATTAINMENT DEMONSTRATIONS

APPENDIX V-B TOXIC AIR POLLUTANT STRATEGIES

APPENDIX V-C ECOSYSTEM PROTECTION STRATEGIES

Ideas for incentives/motivations for States/local governments/MJOs to do an AQMP:

- Preferential credit/treatment in 105 funds allocation
- EPA involved up front in the process
- Offer of in-kind resources from EPA staff in developing the AQMP
- EPA could allow states to trade off administrative obligations that achieve little in terms of public health protection for program/activities that enhance public health protection (i.e., increased reductions in emissions of a high risk pollutant)
- Find acceptable ways of streamlining the SIP process for states who are doing an AQMP
- Valuable tool that identifies gaps where more needs to be done
- Enhanced role for local and mjos in air quality planning
- Provides more access and transparency to the public regarding what their government agencies are doing to protect public health, what's being accomplished and what still needs to be done
- Process of doing an AQMP enhances coordination between federal, state and local governments
- Other ideas…..

For more than three decades, one of the core principles of the federal Clean Air Act has been the "nonattainment area." This designation, intended to include areas that violate national ambient air quality standards or that contribute to violations in nearby areas (§107), invokes a number of mandatory clean air measures and triggers the requirement for the state to prepare and implement a State or Tribal Implementation Plan (SIP/TIP) to bring the area into compliance with the health-based National Ambient Air Quality Standards (NAAQS). This approach has had tremendous success, resulting in greatly reduced motor vehicle, industrial and area source emissions across the country, especially in urban areas. It has also increased public awareness of the adverse health effects of air pollution. Overall, it is a central and highly successful concept.

As the air quality challenges shifted from primarily localized to pollutants that are more regional in nature (beginning in the early 1990's), however, there have been questions from some regarding how well local emission controls work for pollutants that are regional in nature. There is a growing sense among some that the current approaches to designating nonattainment areas may not adequately capture enough of the sources that are contributing to poor air quality. The more traditional local-problem-local-control approach achieved only limited success in remedying ozone violations of the NAAQS. Numerous studies, including the Ozone Transport Assessment Group, demonstrated that some degree of regional and national emission controls are needed to supplement local controls in order to make progress toward ozone attainment in many locations in the eastern U.S. This finding also holds for fine particles and regional haze, which are often regional in nature. In some parts of the country, such as in California and in the Northeast, regional planning and control approaches have already been implemented and are proving to be quite successful. Other areas of the country are now finding themselves grappling with the same question of how to approach regional planning and controls (particularly in light of more stringent NAAQS). As part of the CAAAC AQM process, air pollution boundary definitions and their application are being reviewed in the context of how local, regional, and national air pollution control programs could be effective and efficient in controlling and mitigating air pollution across all areas of the country.

There are two important reasons that the current approach to boundaries with respect to nonattainment area designations warrants review. First, the designation process has been based on geo-political boundaries, which in turn cause some difficulties in dealing with a problem that transcends such boundaries. Currently, Governors make recommendations to USEPA based on their states' air quality monitoring data, and EPA ultimately sets the boundaries. The current structures that EPA has put in place to respond to interstate transport of air pollution -- primarily through what EPA terms "SIP Calls," – are based on geo-political structures as well and are tied to inadequate SIPs/TIPs (i.e., after they are submitted) rather than through up front collaborative planning across states and/or regions. EPA has indicated that it can do little more than such SIP call-type processes to encourage up front and timely planning to address the interstate transport problem within the geo-political SIP structure.

Second, many states feel that there is a stigma associated with the label of "nonattainment." This is largely due to the mandatory requirements that take effect in nonattainment areas.[1] As a result, in

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[1] E.g., stricter technology requirements for new and modified major sources, offset requirements for major sources, transportation conformity and, in some cases, motor vehicle programs such as Inspection and Maintenance.

some areas of the country, there has been a tendency to define nonattainment areas as small as possible. In turn, this has lead to:

- States' reluctance to put air quality monitors in currently unmonitored areas because if there are no data for an area it is much less likely to be included in a future nonattainment designation;
- Development being pushed just outside county or urban core boundaries (where no offsets are required and permitting is easier), thus contributing to urban sprawl, failure to maximize the redevelopment of brownfields, and no regional improvement in air quality (or, indeed, an increase in regional emissions because of additional commuting and the fact that the source need only meet BACT requirements, not the more aggressive LAER standards;
- Situations where counties with minimal local emissions have the full force of the nonattainment requirements applied to them, even though they could zero out the local emissions and not affect local air quality at all, or only minimally.

Such an approach does not lend itself to maximizing protection of public health as prescribed by the Clean Air Act.

The intent of this paper is to consider new approaches for establishing boundaries for clean air planning that address some of the concerns and trends described above.

Our discussions have assumed the following concepts or desired endpoints:

- ➢ Address situations where emissions in upwind areas contribute significantly to violations elsewhere.
- ➢ Provide a mechanism that can address interstate transport during the SIP development process and ensures that areas with contributing sources are involved in the initial SIP planning process.
- ➢ Minimize disincentives for monitoring.
- ➢ Reduce the desire/incentive to define areas of violation as small as possible.
- ➢ Do not punish areas where air quality is poor if they have taken all reasonable steps to reduce local emissions.
- ➢ Better define sources that actually contribute to NAAQS violations and have a system that naturally includes those sources in the area subject to control requirements.
- ➢ Set boundaries more based on science and less on geo-political boundaries.
- ➢ Recognize the increasing necessity for regional programs for which states must work cooperatively and ensure accountability.
- ➢ Respect state/tribal rights and balance local and regional control programs with supportive and complimentary national control programs.
- ➢ Recognize the increasing necessity for national in which the federal government takes the lead and ensure accountability.

Based on these concepts and building from FACA work in the 1990s on Areas of Violation and Influence (AOV and AOI), the AQM boundaries group recommends that EPA expand upon its conventional application of nonattainment area boundaries through a concept of "control regions." This concept would maximize effectiveness and equity in implementing air pollution controls needed to bring areas that violate the NAAQS into attainment. The AQM boundaries group is working from a

premise that it makes sense to separate the definitions of areas with NAAQS violations from areas that contribute emissions to those areas.

For purposes of this discussion, we will refer to areas where air quality does not meet the NAAQS as "areas of violation" and areas where emissions contribute to those violations as "control regions." In many cases, the area of violation will be contained within the control region, though there will be situations in which there is partial or even no overlap.

A broader area of control is recommended for the control region in order to provide the vast majority of the necessary emission reductions needed to bring the area of violation into attainment. As noted above, we envision that most of the areas of violation will be geographically contained within their respective control regions. We also envision that control regions would start oversized, reflecting an area that is likely to contain the vast majority of the culpable emissions. These default regions could then be refined into smaller and more scientifically defined regions through an exercise conducted in a state, multi-state, and tribal collaboration that could be moderated by multi-state organizations and with the assistance of EPA. The group also discussed the benefits of dividing the control region into zones, e.g., inner and outer, to better target controls at appropriate levels. At minimum, the area of violation must take reasonable steps to ensure that their local emissions contributions do not make their own problem worse or contribute to violations in downwind areas. Once such geographic regions are finalized, regional control strategies (through Air Quality Management Plans) would be developed and incorporated in individual enforceable SIPs/TIPs.

The Tables included at the end of this paper provide an initial consideration of what requirements would apply in the areas of violation and the control regions. Again, the intent is to better balance requirements that apply in the areas where violations exist and the areas from where the emissions originate. By making the control requirements appropriately assigned up front in the SIP/TIP process, particularly in upwind contributing areas, and sharing responsibility for violations of the health-based NAAQS, the stigma of being labeled "nonattainment" may be reduced.

- Two key components:
    1. Areas of violation
    2. Areas of control (potentially 2 zones)
- Areas of violation
    o Want to address disincentive to monitor
    o Will generally be contained within the control region
    o Control requirements will exist in this region.
    o Not necessarily automatically sanctioned for failure to attain or act if all actions are taken to address local emissions
- Control regions
    o Should default to large boundaries (Airsheds)
    o Affected jurisdictions can refine to smaller, scientifically correct boundaries with application of modeling and tech analysis
    o Control regions can overlap for multiple areas of violation
    o Control requirements will exist in this region.
    o AQMPs prepared to shape subsequent enforceable SIPs/TIPs
- Large Predefined Default Airsheds
    o Could serve as default control region boundary
    o Could serve as larger geographic zone for some controls

Table 1. Requirements in areas of violation and control regions if area of violation IS contained within Control Region

	Requirements		
	AOV **(Case of AOV-Control Region Overlap)**	**Control Region**	
		Inner Zone	**Outer Zone**
SIP/TIP Required?	Yes	Yes	Yes
Attainment Demonstration Required?	Yes	Yes	Yes
Ambient monitoring	Enhanced (improve time and geographic resolution)	Initiate or continue (Better define areas that approach NAAQS) – PAMS possible	Initiate or continue as needed for the area – PAMS possible
Comprehensive Emissions Inventory Required?	Yes - 3-year cycle	Yes - 3-year cycle	Yes - 3-year cycle
Public education, outreach, advisories	Yes - Enhanced	Yes	Yes, As needed
Major new/modified sources *(discussions ongoing)*	LAER with 1:1 offsets or alternative that provides for no net emission increase	LAER with 1:1 offsets or alternative that provides for no net emission increase	LAER
Non-major new/modified sources *(discussions ongoing)*	BACT with 1:1 offsets or alternative that provides for no net emission increase	BACT with 1:1 offsets or alternative that provides for no net emission increase	BACT
Existing sources (RACT/RACM)	Stringent controls for sources greater than 100 tons	Stringent controls for sources greater than 100 tons	Stringent controls for sources greater than 100 tons – on sources/source categories that significantly contribute to AOV
Emission reporting	Yes - as per nonattainment area	Yes - as per nonattainment area	Yes- for major sources
Transportation Conformity	Yes -in MSA/CMSA	Yes -in MSA/CMSA	Yes- in MSA/CMSA to the extent that it matches MPO jurisdiction
General Conformity	Yes	Yes	Yes
Motor vehicle controls[2]	Local programs optional for SIP credit -VMT demonstration - Clean fleet/fuels	Local programs optional for SIP credit -VMT demonstration - Clean fleet/fuels	Local programs optional for SIP credit -VMT demonstration - Clean fleet/fuels
Rate of progress (RFP) *(discussions ongoing on alternative to RFP)*	Yes - with contingency measures	Yes - with contingency measures	Yes - with contingency measures
Additional controls needed for attainment	Local programs optional for SIP credit – if needed	If needed	If needed
Sanctions	Applied if above requirements are not implemented	Applied if above requirements are not implemented	Applied if above requirements are not implemented

Table 2: Requirements in areas of violation and control regions if area of violation IS NOT contained within control region

	Requirements		
	AOV (Case where AOV and Control Region Do Not Overlap)	**Control Region**	
		Inner Zone	**Outer Zone**
SIP/TIP Required?	Yes	Yes	Yes
Attainment Demonstration Required?	Yes	Yes	Yes
Ambient monitoring	Enhanced (improve time and geographic resolution)	Initiate or continue (Better define areas that approach NAAQS) – PAMS possible	Initiate or continue as needed for the area – PAMS possible
Comprehensive Emissions Inventory Required?	Yes - 3-year cycle	Yes - 3-year cycle	Yes - 3-year cycle
Public education, outreach, advisories	Yes - Enhanced	Yes	Yes, As needed
Major new/modified sources *(discussions ongoing)*	LAER	LAER with 1:1 offsets or alternative that provides for no net emission increase	LAER
Non-major new/modified sources *(discussions ongoing)*	BACT	BACT with 1:1 offsets or alternative that provides for no net emission increase	BACT
Existing sources (RACT/RACM)		Stringent controls for sources greater than 100 tons	Stringent controls for sources greater than 100 tons – on sources/source categories that significantly contribute to AOV
Emission reporting		Yes - as per nonattainment area	Yes- for major sources
Transportation Conformity		Yes -in MSA/CMSA	Yes- in MSA/CMSA to the extent that it matches MPO jurisdiction
General Conformity		Yes	Yes
Motor vehicle controls[3]	Local programs optional for SIP credit	-Local programs optional for SIP credit -VMT demonstration - Clean fleet/fuels	-Local programs optional for SIP credit -VMT demonstration - Clean fleet/fuels
Rate of progress (RFP) *(discussions ongoing on alternative to RFP)*		Yes - with contingency measures	Yes - with contingency measures
Additional controls needed for attainment	Local programs optional for SIP credit – if needed	If needed	If needed
Sanctions	Applied if above requirements are not implemented	Applied if above requirements are not implemented	Applied if above requirements are not implemented

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[3] Treat as "existing source." For example, I/M would be RACT/RACM for ozone in inner zone, could be RACT/RACM in outer zone

Air Quality Management Subcommittee
Minutes from Meeting on August 1 - 2, 2006
Adam's Mark Hotel
1550 Court Place
Denver, CO 80202

<u>Attendees:</u>

See list of participants at end of the meeting minutes.

<u>Air Quality in the Denver Area</u>: – Ken Lloyd

After a brief introduction and identification of attendees, Pat Cummins (AQM Subcommittee Co-Chair) introduced Ken Lloyd, Executive Director, Regional Air Quality Council (RAQC). Ken, who has been the Executive Director since 1989, was to address successes and challenges of air quality in the Denver area over a period beginning in the mid-1970's (see Denver_aqm_aug06 pdf.).

Even with increases in population and VMT, decreases in the number of NAAQS violation days in the Denver area for O3 (1-hr), PM10 and CO have been significant since the mid-1980's. The reduction in violations has lead to attainment redesignation for these pollutants; by contrast, in the 1970's, NAAQS were annually exceeded on nearly 200 days. The Denver Brown Cloud due to fine particulate matter, a nationally recognized issue, has also been substantially improved.

RAQC is the lead agency for air quality planning in the Denver region. Planning for SIPs and coordination with public and private entities, as well as with the general public, are key responsibilities. Out of frustration with the normal SIP process, RAQC prepared a blueprint for clean air with the region's first comprehensive, long-range air quality plan. All pollutants were considered out to the year 2020 and the plan was coordinated for air quality and transportation. There was significant public involvement and the course for many short-term actions was set. The blueprint recommendations included reductions in emissions from power plants, diesel vehicles, high-emitting vehicles and street sanding; evaluation of I/M and oxygenated gasoline programs was included. Through control programs, and by working with Denver Regional Council of Governments and local agencies on voluntary and incentive programs, the efforts to improve air quality were successful. An early action compact (EAC) also led to deferring any nonattainment designation for O3 (8-hr) until 2007; ozone action days with a public information program have also been implemented. Nevertheless, with the recent hot summer, attainment for O3 could become an issue. On the other hand, all PM levels appear to be below the NAAQS. Two programs were identified as particularly helpful: the diesel retrofit program has been very successful in the number of school buses that have been addressed; another program that identifies high-emitting vehicles and encourages repair is also being implemented.

In response to questions, Ken noted that RAQC's area of responsibility was limited to the Denver area, but that it has good working relationships with other surrounding areas that are using some Denver approaches to air quality. RAQC is also working with the State of Colorado on implementing a retrofit program. It was noted that the State of Colorado is the government agency that has authority over oil and gas wells in the northern part of the state and that, as part of the EAC, certain levels of control are requested; the source chooses where and how control is implemented. More control may be needed due to growth. Ken also noted that Denver is moving out of an ethanol program, since ethanol is coming to market without regulation, is not needed for further controlling CO, and is less effective for newer vehicles.

Issues Discussion and Schedule: – Greg Green and Pat Cummins

Greg indicated that we were in the process of transition from (1) the work of two teams to (2) deciding what should go into the final report and drafting that report. The work of Teams 1 and 2 is essentially done and members of the teams are thanked for their efforts. John Hornback has put together a revised outline for the final report. However, during the previous meeting in Atlanta, there was some sense that, even though we have recommendations, some key aspects of the recommendations have not been fully discussed. If more discussion is desirable, it may be necessary to delay the report until the first CAAAC meeting in 2007 which would probably occur in April. This implies a 3 to 4 month delay in issuing the report; Greg indicated a desire to have comment on this possibility.

In the subsequent discussion, it was noted that much of the Subcommittee work has been abstract (e.g., continuous improvement); it has not been oriented to specific problems. Initial specificity morphed into something more general in taking a longer term view. However, the SIP process also hasn't been oriented to specific problems; there are national- versus local-level tasks. Perhaps one more step should be taken to deal with specific problems. It was also noted that each member has a special interest to represent and that we have been gentle with each other; less gentleness may have lead to more detailed discussion.

Some immediate illustrative issues that could receive further consideration include: What issues do we see that can be addressed in the short-term (5 to 7 years)? Are there some issues that can drive SIP planning further? Do we reinvent the process or tee-up issues for further future discussion? We also need to consider collaboration of competing interests, or bottom-line tradeoffs, to which we haven't gotten; realistic expectations about what we can and cannot accomplish should be developed. Bob Wyman extended these points by emphasizing that subcommittee work has been done in a decentralized manner with the two teams. As a result, it is unclear where we are on a number of topics: designations relative to a continuous improvement program; major source thresholds below which we don't control; federal accountability and dealing with failure; use of taxes and fees; more disclosure from companies and cities; a replacement for NSR; exposure data on air toxics; demand side on clean fuels; climate change; other topics on which more work is to be done. Reasonable Performance Level (RPL) and

continuous improvement, in particular, need more specificity. Several participants felt that a strategy is needed to get to more detail and understand where we are. However, the Subcommittee may not have the stomach for more of these issues; we started out detailed, then became fuzzy, and now we want more detail.

A motivating event may be needed to bring us to the end, but it may not be where we want to go. We already have good recommendations, but also have skirted some key issues. It may be desirable to "drill down" on a few issues to get more resolution. We should make recommendations on specific control measures and tools; but we need to build consensus among a larger group. Regarding changes to the air quality system over time, the current system is thought to be imperfect, but not fundamentally flawed. Progress is being made on a number of significant programs, including NAAQS, national emissions standards and State/local responsibilities; we should continue working on improving these.

Regardless of how much more discussion there is, we should memorialize that discussion and more forward. It was also emphasized by several participants that it would be better to have two months to get comfortable with language of the report, especially the bigger concepts, than further discussion of issues. Some States have expressed an interest in reviewing a draft final report; other reviews are also desirable.

Greg then followed up on the question of whether the air quality system is working well or is the "monster" that we know? For example, climate change is an issue that we are not thoroughly addressing, but its impacts may be approaching a point of irreversibility. Are there some issues like this that we should be dealing with more forcefully? On the other hand, climate change may be too big an issue for this group and should not hold up the AQM Subcommittee. We have taken "low hanging fruit" with our current approach. A new process may be needed to address how to reduce emissions beyond where we are.

It was noted that an independent group of scientists has said that there is good progress and success, but that there is a need to plan improvements for the future, e.g. air toxics for which we don't have progress (i.e., can't use SIPs). Success won't be achieved with suggestions for ozone and PM and then band-aid other topics like toxics. What is a new way to deal with an integrated approach? We are addressing the "monster" we know, but we may want to identify a new "monster". Also, what is the product that we are after? Is there a driver for a new approach? Will drilling down make the existing approach better? We have always been dealing with short-term versus longer-term challenges. Is the current system good enough for current challenges and how will it work for challenges of the future? There is the right to disagree, but how can we avoid automatic legal challenges. If we have more time, how will it be used? We need to nail down a target.

Conclusions:

Teams' work is essentially done. Begin working on final report following Hornback draft outline.

We need to resolve some key aspects of recommendations and may have to delay report until first CAAAC meeting in 2007 (e.g., 04/07) which implies a 3 to 4 month delay. This should allow time (1) to "nail down" target, (2) to "drill down" on a few key issues, and (3) provide 2 months for AQM Subcommittee members to get comfortable with language of the draft final report.

We have a list of candidate issues to address (e.g., Wyman list). We need to decide if the current air quality system is working well, is the "monster" that we know, or if we want to identify a new "monster" (e.g., integrated approach).

Team 2 Narrative Discussion: – Anna Garcia, Bob Wyman, and Debbie Wood

Bob indicated that the "Draft Tools Narrative" (see draft_tools_aug06.pdf) was intended to explain the tools matrix and the context of its development; the narrative was not intended to be controversial. In the process of digging deeper on specific problems, it would be helpful if the committee would identify 2 or 3 tools for which a "drill down" could be used.

Previous examples are not the only ones that can be considered for drill down. We could recap relative strengths of individual tools and who could best implement them. It was noted that there will be a further outline of the demand-side for drill down. Other examples could include the legacy fleet turnover for tribes (involves federal government bureaucracy) and truck turnover (problems with who is involved and funding). Also, at the last CAAAC meeting the mobile source subcommittee addressed some issues; we could build on their information. Another option is to expand the matrix with more top topics identified at the last meeting and then identify drill down topics. Contractor assistance could be used to write up topics for which additional drill down is done.

Conclusions:

The draft tools narrative is not intended to be controversial, but to explain tools matrix and context of development.

It would be helpful if Subcommittee would identify 2 or 3 tools (beyond examples given) that could be "drilled down". We could recap relative strengths of individual tools and who could best implement them, e.g., demand-side, legacy fleet turnover, truck turnover. It might be possible to build on information being developed by the CAAAC mobile source subcommittee.

A contractor could be helpful in writing up results of "drill down" topics.

<u>**Review AQM Challenges**</u>**: – Michael Bradley**

The challenges paper and its purpose were reviewed (see aqm_challenges_draft.pdf). Challenges for air quality managers of the future, and associated implications, are addressed. Figures that address decoupling from the GNP and the latest information on NAAQS need to be added. The challenges are thought to be a good summary from the NRC report and John Bachmann's futures briefing. If challenges are identified in the front of the final Subcommittee report, recommendations should address those challenges. Is the SIP process adequate? Can a more responsive process to challenges be designed that is less confusing to the public? Subcommittee members identified a number of topics that could be added, including: residual nonattainment for PM could fall to States; show a base case and relation to SIPs; whether the SIP process is up to today's problems, e.g., air toxics; accounting and tracking; temperature (climate)/precursor/long range transport/ecosystems may not be addressed; airplanes; fuels; environmental justice; continuous improvement; monattainment areas that are not in compliance; and whether the SIP process is capable of addressing residual emissions after CAIR.

Michael noted that some of the additional topics were not included due to an oversight. It is hard to be both brief and comprehensive. Also, there may not be enough information to determine the degree of some challenges. John Bachmann indicated that for the next Subcommittee meeting he will be able to share information from national analyses that are planned. There is also a need to look at primary emissions (automotive and metals) in addition to precursors. Does this imply that smaller/area sources emphasized in Phase 1 are the primary focus for the future? Bachmann indicated that source contribution importance is a function of specific problems; local sources (big or small) can be important for some areas.

It was also noted that the challenges paper should identify that types of control (e.g. clean fuels, GHGs) may affect energy, MTBE, and other energy/environmental issues; so there is a need to consider holistic pictures and unintended consequences or trade-offs; Carolyn Green will help draft something. It was noted that a number of recommendations address some of the challenges, but some challenges are not addressed. The challenges discussion should be linked with recommendations on climate (Team 1 / Group 3).

Conclusions:

Comments on Challenges should be sent in writing to Jeff Whitlow, Deb Stackhouse, and Michael Bradley; figures need to be added.

Other issues to include: EJ, roadway, airplanes, fuels, international transport, ecosystems. Links with the T1G3 recommendations on climate should be considered. Whether the SIP process is up to the task for O3/PM accountability and tracking, needs to be addressed, e.g., nonattainment areas remaining after CAIR. Can a more responsive process, and one less confusing to the public, be designed? More information from

national (CAIR) analyses can be provided by Bachmann for the next Subcommittee meeting. The roles of primary emissions and smaller area sources for the future need to be addressed.

Carolyn Green is to submit write up on trade-offs of control programs that affect energy/environmental issues and understanding relative risks of "unintended consequences".

A new draft is to be provided by Michael/John for the October Subcommittee meeting.

Issues for Discussion: – John Hornback

John indicated that the purpose of these discussions is to review recommendations to date and explore the possibility of further development. Recommendations for which there has been substantial agreement should be identified. Previous recommendations that have not been accepted should be reviewed and a determination made as to whether there are opportunities that have not been explored. Also, issues worth further discussion should be identified and (1) reach agreement on them, (2) drop from further discussion, or (3) determine if it is worthy of further discussion and develop a schedule and approach. Subjects for consideration include: statutory authority, Comprehensive Air Quality Management Plan (AQMP), setting air quality standards in an AQMP, assessing air quality, and continuous improvement. (See aqmp_draft_aug06.pdf)

Statutory Authority – John Hornback. The background to this topic is that some subcommittee participants have suggested that recommending changes to the Clean Air Act (CAA) should be avoided, since it may be likely that there are some critical recommendations that are important enough to pursue, even if CAA amendments would be required. Regarding the CAA, is it advisable for the Subcommittee not to proceed with recommendations that would require CAA amendments? Which benefits justify pushing recommendations even though CAA changes might be required: cleaner air, quicker implementation, less resource intensive, or some combination? Should this topic be pursued?

One participant suggested that CAA changes are not off-limits if there is agreement on the problem and on solutions. Another view was that concepts discussed have not jelled into changes that should open up the CAA; there is risk in opening "Pandora's Box", e.g., the tobacco bill; there are also State/tribal concerns about opening the CAA. Another view is that the discussions have been useful and that a list of things for potential change would be useful; identification of desirable changes if the CAA should be opened in the future would be helpful. Another view was that change may be good. Congress has not made major environmental law changes in some time and rewriting the CAA is not likely to happen; rather, we need to find ways to make the system work better. There are examples of recent changes to the CAA that didn't open up the entire act, e.g., the employee commute act, so narrow changes might be possible.

Conclusions:

Don't let possible changes to CAA act as a restriction to discussions. Understand the double-edged risks of opening the CAA to change.

Create a list of topics as having substantial merit that have been discussed for potential change, without identifying a specific change that is needed, i.e., do not advocate a change. Identify potential barriers, disbenefits, and benefits with each recommendation considered. Indicate if there is anything important that was not addressed in the Phase I report that should be included in Phase II.

Air Quality Management Plan – John Seitz. Some unresolved questions involve the integral components of the AQMP. Are the subject areas already in the discussion adequate, or should the concept be bolstered with additional or expanded issues? How can the AQMP concept be made the most effective tool that it can be? Components include administrative procedures, technical procedures and programs, and continuous improvement.

Federal/State/local/tribal interfaces are a significant component of the AQMP topic and the discussions merged. Issues include: efficiency of design of enforceable federal mandates for use by S/L/Ts; set up of federal program to be like Title IV that requires less S/L/T action; SIP approvals and federal enforceability; streamlining of administrative requirement for SIP approval; alternatives to determine feasibility for simplifying federal enforceability/SIP adoption process. More generally, why can't we make the SIP process quicker and more streamlined, and provide for accountability if we don't deliver? Can enforceability of federal rules by States be made easier?

Participants indicated that to have an emphasis on a multi-pollutant plan and improve the federal/State partnership requires change to the SIP process and CAA amendments. Federal accountability for reducing emissions also requires change to the CAA. A California representative should discuss how they tried to assign accountability to EPA and see the extent to which CAA amendments may be necessary. Alternately, we can make recommendations on how AQMP can be made without requesting a CAA change, but identify CAA barriers. Similarly, are there things that could be done short of CAA amendments? Is there something EPA could do through a regulation, e.g., grant authority to require an AQMP? It was suggested by an EPA/OGC representative that the group should not impose barriers on itself based on assumptions about what can/cannot be done under the CAA. The Subcommittee should come up with good ideas and let OGC decide whether it is possible under the CAA.

A multi-pollutant program is something everyone supports, but one we are not doing anything about or determining how to implement. Can current SIP requirements and deadlines be wrapped into the AQMP? What about toxics, haze, ecosystems, hotspots? End points are lacking. Could residual risk be used as an end-point for toxics

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to facilitate a multi-pollutant approach? How do we expand beyond SIPs? Again, we should hear how California does it.

Actually, there is a place for each of the issues in the AQMP. Based on the comments/suggestions, we should design what an AQMP would look like regardless of the CAA. How could EPA help or entice (incentives) States to do AQMP, e.g., grants, IPA, etc. The Detroit pilot program and new tools and information that can be derived are helpful. Accountability and penalties if actions not met need to be addressed, as well as encourage innovation of "good value".

Resources are a major issue and it is desirable for communities, in particular, to do AQMP. However, a common schedule for pollutants will not solve these issues. Is there a place for local entities in AQMP without federal enforceability? How could this be encouraged? Is the AQMP enforceable, or just some components of it? Note that some portions of SIPs are not enforceable and that adoption of rules is different from State to State.

Conclusions:

Lynn Terry should be asked to present multi-pollutant process used in California.

Based on comments/suggestions, we should design what the AQMP would look like, regardless of the CAA. Then address how EPA could help or entice (incentives) States to do AQMP, e.g., grants, IPAs, etc. The Detroit pilot program and associated new tools/information can provide a good example. Leave to EPA as the implementing authority to decide if changes to the Act are necessary; CAA barriers might be identified. Issues discussed include in no particular order: resources, SIP requirements/deadlines, streamlining, timeliness, accountability, enforceability, multi-pollutant emphasis, and federal/State/local partnership.

Group developing AQMP Concept is: John Hornback, John Seitz, Dan Johnson, Brock Nicholson, Lynn Terry, Mark MacLeod, Amy Vasu

Setting Air Quality Standards – Mark MacLeod and John Seitz. The background to this topic is that the 5 year NAAQS review cycle conflicts with the realities of current SIP development obligations. Is there a way to modify the approach to SIPs through the AQMP to remove these conflicts, perhaps through a longer schedule or through a shortened SIP process?

The NAAQS have been found to be protective of public health, although the process doesn't match-up with SIP timing and hasn't always net timelines. The AQM Subcommittee should consider EPA's review of the NAAQS process and the associated report. Other aspects are the science review, the staff paper, and control options discussions. Resources and politics can be an issue in completing a NAAQS.

Conclusions:

EPA is already reviewing the NAAQS review process. Allow EPA to finish review prior to making recommendations. Encourage OAR to present conclusions to CAAAC.

<u>Assessing Air Quality – Monitoring – Dan Johnson and John Hornback</u>. There are questions about whether we are doing enough monitoring in each State to make accurate declarations of the status of air quality relative to each pollutant of concern. Can we eliminate disincentives to monitoring? Are there cheaper approaches to monitoring that could provide opportunities for more extensive monitoring within monitoring budgets?

Significant aspects of these discussions are the AQMS process goals which include creating an effective/timely/efficient/simple air quality management system that provides for sustaining partnerships with S/L/T activities. Adequate tools to create and maintain that AQMS are also important. Air quality assessment through monitoring, modeling and attainment determinations is important in drilling down on this topic. Monitoring should use the simplest and best system. Issues and improvements beyond those addressed in Phase I should be identified. Key purposes of monitoring include analyses, enforcement, attainment, and tracking control strategies.

Concern was expressed that emissions monitoring is not as good as can be. Emissions monitoring is complex, has high maintenance and is energy intensive; cost versus control is also important. CEMS require work to make them more useful. How do we make CEMS less costly and more effective?

Agencies spend most money on personnel and monitoring. How do we get complete coverage of monitoring across a State? It was noted that NASA monitoring might be used to obtain broad coverage. A different concern is that associated with data collection from and costs of automated air monitoring. Funding cuts for monitoring are an issue. The monitoring paradigm has to change to address the complexities of air toxics. We should tap into critical loads and consider how to use ecosystem monitoring. Air quality problems in small areas that have no emissions are a special concern.

Monitoring recommendations (Team 1 / Group 1) need to be coordinated with the Centers for Disease Control and Prevention (CDC) on health trends. Linkage of air quality and health is being addressed by other EPA work. Translating monitoring results to health results is an issue to address; tracking health results is especially complex. Siting criteria for monitoring of highway tunnels is important.

Conclusions:

John Seitz is to follow-up on potential for tapping into scientists (universities) to enhance current monitoring recommendations (beyond Phase I); maintenance, costs, and enhanced use of data continue to be issues. Also of interest is coordination and communication on use of emissions inventories, monitoring, modeling, and health data to get better information on the spatial distribution of pollutants and their effects. A guidance document on how best to use these tools to meet policy needs is desirable. Do we drill down on emissions monitoring incentives?

<u>Assessing Air Quality – Attainment/Nonattainment Determinations – Dan Johnson and John Hornback.</u> Background questions involve adequately discussing and deciding on a future approach to attainment boundaries. Can areas that are truly subject to the emissions of others be exempted from some of the substantial requirements that are normally mandated on all nonattainment areas? Is the approach involving areas of influence (AOI) and areas of violation (AOV) one that we could recommend? We need a better explanation of AOI/AOV.

John Hornback noted that this is a discussion involving boundaries, the boundaries paper (Team 1 / Group 2), and what the purpose of an airshed approach should be. The boundaries paper says that there should be a demarcation between AOV and AOI. Who has the control burden, especially if the AOV doesn't have sources? Should we predefine airsheds or base airsheds on a specific problem? Should we assume that the problem is regional unless it can be proven otherwise; also consider local aspects. Doesn't regional haze involve an AOI process?

The discussion of this topic involved many diverse concepts and ideas for implementation. They are summarized in the following paragraphs. First, the fate of the original AOI/AOV concept was sought. It was thought that legalities got in the way. Nevertheless, someone needs to say air is dirty and define source contributions. Is AOI/AOV a CAA amendment issue? A cornerstone of designations is saying the air is dirty and identifying sources as in an AOI. We should look beyond nonattainment areas for source contributions. If this requires CAA amendments, then so be it. We can't predefine areas in a boundaries paper. The RPO process is a good model for a technical foundation for O3, PM and RH. Boundaries should be drawn to include sources. We should support a group that looks at the FACA process and identify recommendations that look outside of the box.

There are significant regional differences with some areas not having problems, others having local problems, and yet others where everyone is subject to the same level of control. Nonattainment areas should include all sources that contribute to the problem. The nonattainment issue is very political and is tied to many comments; politics may mandate a fix and needs to be considered in the options proposed. The northeast keeps looking locally as a example of keeping their "hands clean" and still have AOI controls. We should keep the link between nonattainment and AOI. Don't segregate those causing the problems from those receiving it; expand nonattainment areas to include problem sources. We must avoid cases where nonattainment areas don't have sources. AOV should bring in AOI so that you need both. How do you reduce the political aspects or those that drive political response about economics, etc? Again in the northeast they are controlling local source categories on a statewide basis. To what extent does the current system allow clean new sources with advanced technology regardless of where they are located, so that whether they are in or out of nonattainment becomes less important. North Carolina has required significant controls outside of nonattainment areas, even where offsets were not available, even where not in an AOV.

If an AOI is larger that a nonattainment area, what would it do? Nonattainment areas have a lot of impacts and penalties. Setting up another system will still be subject to political decisions. CAA amendments will not relieve this problem. Can we somehow disconnect nonattainment areas from contributing sources and associated obligations? We should peal away lines between nonattainment areas and sources of influence. Doing away with nonattainment designations would be difficult for identifying violations, but what about outside sources. Consider how to adjust requirements inside and outside of nonattainment areas. What are control requirement in an AOI and what if they can loose the nonattainment tag but still have AOI controls? Consider other options. Eliminate things required that don't make sense and focus on those that do. States must have some flexibility, but EPA still needs approval at its end. If you model one source at a time there never will be a significant impact. It is necessary to deal with accommodating energy needs, or someone else will do it for us.

What is the purpose of nonattainment areas which provide disincentives for monitoring? Areas of various limits aren't working as intended. We need a recommendation on alternatives to boundaries. The process of establishing boundaries is difficult. We should avoid aspects of boundaries; we should try a statewide management plan and combine with an RPL for particular air quality issues. Another way to approach this is recommending a statutory change. In any case, we should let data dictate where the problem is. We may not need boundaries and only look at the problems. However, we should avoid disincentives to monitoring and fund the best solutions.

The linkage between nonattainment and control requirements relative to offsets are troublesome. Everything interconnects so that boundary issues become less important. What is the purpose of boundaries and of offsets? We have pushed development to boundaries without solving center city problems. What happens to offsets when emission reductions are used up and may need exemptions, as in California. Now we are at a problem point. LAER/RACT would apply in all AOI and nonattainment areas. An offset program shouldn't control growth. Proposed plants in some parts of California are being highly controlled; don't hold these to offsets. Note that offsets aren't the only issue in some places, but transportation conformity is. Statewide control may not always be required. Conformity and offsets have been used in nonattainment and alternatives are unclear. There is concern about setting up new ways to deal with difficult problems and whether they are viable.

Conclusions:

A small boundaries group is to flesh out boundaries/AOI/AOV – Dan Johnson, Brock Nicholson, Bob Wyman, Janet McCabe, Jeff Underhill, Jonathon Averback, and Amy Vasu.

The boundaries group will address issues based on the following principles:
    - We need to inform the public where there are violations;

- We need to control the appropriate sources statewide; start with the local area for controls, but additional controls may be necessary regionally and nationally to solve the problem (and international in some cases);
- We need obligations/sticks for States to include control measures for the appropriate sources statewide;
- We need to provide more flexibility to implement those controls statewide depending on the mix of sources and where controls are most effective;
- There is a need to control new sources.

Issues to be addressed include:

- Do not pre-determine boundaries
- RPOs are a good model for technical foundation to assess areas
- Further discussion is needed on offset requirements (e.g., South Coast power plant example). Offsets should not limit growth where growth is needed.
- Expand controls to AOI?
- Control appropriate sources statewide???
- Review FACA recommendations from 1990's.
- Ensure all new sources are well-controlled?
- Evaluate transportation conformity.

Continuous Improvement – Anna Garcia and Brock Nicholson. This topic appears to be an inherent part of the current SIP process due to periodic ratcheting down of standards and emission limits. Is further discussion appropriate?

Brock indicated the intent to review where we are and how to proceed on continuous improvement. Is continuous improvement a program describing techniques or a menu of options? Is it incentive based, command-and-control, or a hybrid with a soft driver? Is it a catalog of programs and guidance adequate to achieve the goal? Should the program be economy-wide or sector based? Are certain options more reasonable than others? The discussion of cap and trade gave a catalogue of options for continuous improvement without specific requirements. What kind of program does this group think should be recommended or should we have a hybrid. Team 2 gave an example of how continuous improvement programs have worked. Are there concerns other that providing a "period of repose" and credit for recent actions/investments? How might a fee-based incentive be designed?

A preamble to state the purpose might be necessary. What is the role of the program? Is it to fill gaps? If it is a broad tool, then there are issues such as cost effectiveness. We need to have a direct discussion of the topic. It is more difficult than cap and trade.

We are trying to decide if this program is "gap-filling" or is a broad national program. Who gets the benefit of continuous improvement? Does it provide safety for the source or does the source get punished for not following an improvement program to the letter? The concept of continuous improvement appeals to some because putting less

- - -
  - o Could define jurisdictions to act and perform technical work to refine control region boundaries and regionally consistent SIP/TIP components
  - o Explore incentives for regional cooperation
  - ▪ Large sources not included in the control regions could be included for consideration based on formula considering size of source, distance from and likely contribution to an area of violation
    - o Application threshold for source size (major?)
    - o Modeled contribution similar to Regional Haze Rule (?)

Control Region Zones
Inner Zone –
  - ▪ Would be focus for most intensive and nonattainment area triggered controls.

Outer Zone
  - ▪ Would be targeted for certain basic controls and additional controls as needed.

Notes:
Control regions would start with an oversized default airshed, reflecting an area that is likely to contain the vast majority of the culpable emissions. Areas of violation and control regions would then be refined within one year into smaller and more scientifically defined regions through an exercise conducted in a state, multi-state, and tribal collaboration that could be moderated by multi-state organizations and with the assistance of EPA. The collaboration would also define the boundary between inner and outer zones for the control regions.

The appropriateness of area of violation and control region boundaries should be periodically reviewed with a technical analysis to ensure appropriate coverage and adequate progress is made toward attainment.

pollution into the air is "the right thing to do". However, does this include a proposed way to deal with grandfathering.

The focus on recommendations may box us in. Continuous improvement has many possible uses and helps with a variety of programs; it indicates a concept and general use, not a specific recommendation. This concept or process can contribute to the goal of cleaner air, more so than the SIP process. We need to define terms.

If continuous improvement is to be a regulatory program we should be specific. What is continuous improvement? Is it a mindset or a regulation? Continuous improvement cannot be a substitute for the regulatory process; it takes away rights for future public comment, e.g. 4, percent per year reduction versus meeting ongoing emission control requirement is problematic. What issues are we trying to resolve? Disbenefits should be identified. Production/market demand increases or the facility may be punished with maximum control available. Industry doesn't know where it will get credits. How do you provide incentives for continuous improvement? Incentives should be identified.

We need a broader regulatory program for early action credit and a lot of basis for common agreement. Continuous is a problematic term. Facilities can't do something new every year; "credits" could be used later, or retired, and need to be defined in terms of the benefits they provide. Don't dilute the benefits of continuous compliance. Continuous improvement should go beyond compliance and discuss credits; don't blur compliance and improvement.

Conclusions:

We need to define "continuous improvement" and have a statement of purpose. Is it a program describing techniques or a menu of options or a hybrid? Is it a regulation or a mindset?

Continuous improvement has already been discussed at three meetings and we may not have enough time to resolve in the future. Although a recommendation has been drafted with a number of options (T1G2), there does not appear to be agreement within the Subcommittee. If there is not agreement, then the discussion and range of options/concerns should be reported.

**Draft Report Outline and Conclusions: – Greg Green and Jeff Whitlow**

Schedule the report to CAAAC for April 2007. The process for preparing a final report and a draft schedule will be developed next week (08/07/06). The next meeting will be on 09/12/06 in Washington, DC with CAAAC; the meeting will be for a full day (~ 8am – 5pm). The full CAAAC meeting is scheduled for 09/14/06.

EPA staff is continuing to evolve and fill in the outline. EPA staff is working on the Background section. Bradley/Bachmann are responsible for the Challenges section.

Regarding the rest of the draft, the Hornback outline for the final report should be supplemented with the following changes and separate sections (that don't have Subcommittee agreement):

-- Section V of the outline should be renamed Comprehensive Air Quality Management System

-- There should be a section for Other Recommendations

-- There should be a section for Unresolved/Non-consensus Issues

The AQM system should be described and illustrated according to an EMS model

EMS Model
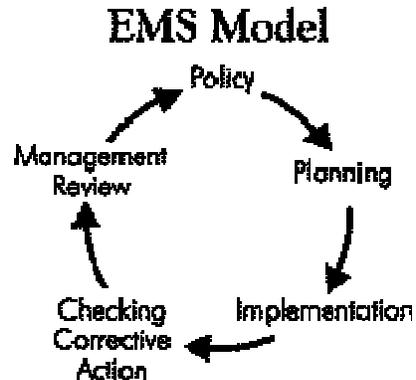
Need discussion on how tools are integrated into the final report and how they tie into AQMS.

Barriers should be identified throughout the report and tied to recommendations.

In general, what we want people to read should be in the body of the report. Also, there should be separate access to meeting summaries in order to see how we got to this point.

Need to allow time for members to review drafts.

The AQM Leadership Team will meet to discuss the process for "drilling down" on the Boundaries and AQMP topics, and will identify if there are other topics (3 to 5) for which "drill down" or additional discussion is desirable.

Participants -- Air Quality Management Subcommittee Meeting
August 1 - 2, 2006
Adam's Mark Hotel
1550 Court Place
Denver, CO 80202

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Pat Cummins, Co-Chair
Bob Wyman
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Debbie Wood (phone)
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Carolyn Green
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