

**Summary Minutes of the U.S. EPA Clean Air Scientific Advisory Committee (CASAC)
Ambient Air Monitoring & Methods Subcommittee (AAMMS)
Public Teleconference**

Panel Members: See Subcommittee Roster provided in Attachment A.

Date and Time: Wednesday, February 11, 2009 from 1 – 4:00 PM

Location: by phone

Purpose: To conduct a consultation on key issues related to Related to PM_{10-2.5} Speciation Monitoring.

Attendees: CASAC Members: Dr. Armistead (Ted) Russell, Chair
Dr. Donna Kenski

Subcommittee Members: Mr. George Allen
Dr. Judith Chow
Mr. Bart Croes
Dr. Kenneth Demerjian
Dr. Delbert Eatough
Dr. Eric Edgerton
Mr. Henry (Dirk) Felton
Dr. Philip Hopke
Dr. Rudolf Husar
Dr. Kazuhiko Ito
Dr. Thomas Lumley
Dr. Peter McMurry
Mr. Richard L. Poirot
Dr. Jay Turner
Dr. Warren White
Dr. Yousheng Zeng
Dr. Barbara Zielinska

EPA SAB Staff: Ms. Kyndall Barry, Designated Federal Officer

Other EPA Staff:

Office of Air and Radiation:

Joann Rice
Brett Grover
Tim Hanley
Robert Vanderpool
Tim Watkins
Lewis Weinstock
Ron Williams
Robert Willis

Attachments: (A) AAMMS roster; (B) agenda; (C) Federal Register notice announcing the meeting; and (D) “Consultation on Coarse Particle (PM_{10-2.5}) Speciation Monitoring” presentation by OAQPS.

Meeting Summary

The discussion followed the issues and general timing as presented in the agenda (Attachment B).

Ms. Kyndall Barry convened the meeting and explained that the CASAC AAMMS will operate under the Federal Advisory Committee Act (FACA). Dr. Ted Russell, the Subcommittee Chair, reviewed the agenda and outlined the process by which the AAMMS report to the EPA Administrator would be written. After confirming that there were no comments from the public, the meeting turned to the presentation by EPA staff.

Ms. Joann Rice walked the Subcommittee through an overview of the Agency's strategy to address the coarse speciation monitoring issues following the October 2006 PM NAAQS rulemaking. The AAMMS sought clarification on a few points, including the timing of the pilot study and the January 2011 date to launch the 75-site PM_{10-2.5} monitoring network. The Subcommittee engaged EPA staff on several topics from PM_{10-2.5} measurement and detection methodologies to techniques for sample storage and shipping. Following the presentation, discussions then turned to the charge questions.

The Subcommittee presented their various viewpoints as expressed in the Committee Members' Comments, which can be found on the SAB website for this meeting at <http://yosemite.epa.gov/sab/sabproduct.nsf/MeetingCal/660E4A5626D861048525753C003E6474?OpenDocument>. Issues that recurred during the AAMMS deliberations: feasibility of the PM_{10-2.5} FRM; the inclusion of organic compounds and nitrate in the target analyte list; potential interactions between particles on the sample filter; the contribution of biological material; proximity of monitors to traffic and other sources; monitor siting to study health effects; optimization of the pilot study data; maximizing flexibility in the network design; and viability of NCore monitoring sites for PM_{10-2.5} speciation sampling.

In discussions of PM_{10-2.5} speciation measurement by difference vs. dichotomous sampling, the various members of the Subcommittee endorsed their preferred speciation measurement technique and consensus was not reached. Dr. Hopke proposed an alternative method using an impactor system to collect particles and provided additional details from his work being done as part of a CRADA. Based on the many outstanding details in the Agency's plan to address the coarse speciation monitoring issues (i.e. sampling and analytical methods, analytes, and site characteristics); the Subcommittee strongly endorsed the Agency rethink it's timeline for moving forward with the pilot study and 75-site PM_{10-2.5} monitoring network.

Dr. Russell thanked everyone for their participation and requested members' revised review comments by Friday, February 20th. The teleconference adjourned at 4:00 PM EDT.

Respectfully Submitted:

/Signed/

Ms. Kyndall Barry
Designated Federal Officer

Certified as True:

/Signed/

Dr. Ted Russell, Chair
CASAC AAMM Subcommittee

NOTE AND DISCLAIMER: The minutes of this public meeting reflect diverse ideas and suggestions offered by committee members during the course of deliberations within the meeting. Such ideas, suggestions, and deliberations do not necessarily reflect definitive consensus advice from the panel

members. The reader is cautioned to not rely on the minutes to represent final, approved, consensus advice and recommendations offered to the Agency. Subcommittee and individual members' advice and recommendations may be found in the final advisories, commentaries, letters, or reports prepared and transmitted to the EPA Administrator following the public meetings.

Attachment A

**U.S. Environmental Protection Agency
Clean Air Scientific Advisory Committee
Ambient Air Monitoring and Methods Subcommittee**

CASAC MEMBERS

Dr. Armistead (Ted) Russell (Chair), Professor, Department of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, GA

Dr. Donna Kenski, Data Analysis Director, Lake Michigan Air Directors Consortium, Rosemont, IL

SUBCOMMITTEE MEMBERS

Mr. George A. Allen, Senior Scientist, Northeast States for Coordinated Air Use Management (NESCAUM), Boston, MA

Dr. Judith Chow, Research Professor, Desert Research Institute, Air Resources Laboratory, University of Nevada, Reno, NV

Mr. Bart Croes, Chief, Research Division, California Air Resources Board, Sacramento, CA

Dr. Kenneth Demerjian, Professor and Director, Atmospheric Sciences Research Center, State University of New York, Albany, NY

Dr. Delbert Eatough, Professor of Chemistry, Department of Chemistry and Biochemistry, Brigham Young University, Provo, UT

Dr. Eric Edgerton, President, Atmospheric Research & Analysis, Inc., Cary, NC

Mr. Henry (Dirk) Felton, Research Scientist, Division of Air Resources, Bureau of Air Quality Surveillance, New York State Department of Environmental Conservation, Albany, NY

Dr. Philip Hopke, Bayard D. Clarkson Distinguished Professor, Department of Chemical Engineering, Clarkson University, Potsdam, NY

Dr. Rudolf Husar, Professor, Mechanical Engineering, Engineering and Applied Science, Washington University, St. Louis, MO

Dr. Kazuhiko Ito, Assistant Professor, Department of Environmental Medicine, School of Medicine, New York University, Tuxedo, NY

Dr. Thomas Lumley, Associate Professor, Biostatistics, School of Public Health and Community Medicine, University of Washington, Seattle, WA

Dr. Peter H. McMurry, Professor and Head, Department of Mechanical Engineering, University of Minnesota, Minneapolis, MN

Mr. Richard L. Poirot, Environmental Analyst, Air Pollution Control Division, Department of Environmental Conservation, Vermont Agency of Natural Resources, Waterbury, VT

Dr. Kimberly A. Prather,* Professor, Department of Chemistry and Biochemistry, University of California, San Diego, La Jolla, CA

Dr. Jay Turner, Visiting Professor, Crocker Nuclear Laboratory, University of California, Davis, CA

Dr. Warren H. White, Research Professor, Crocker Nuclear Laboratory, University of California - Davis, Davis, CA

Dr. Yousheng Zeng, Air Quality Services Director, Providence Engineering & Environmental Group LLC, Baton Rouge, LA

Dr. Barbara Zielinska, Research Professor, Division of Atmospheric Sciences, Desert Research Institute, Reno, NV

SCIENCE ADVISORY BOARD STAFF

Ms. Kyndall Barry, Designated Federal Officer, 1200 Pennsylvania Avenue, N.W. (Mailcode 1400F), Washington, DC, Phone: 202-343-9868, Fax: 202-233-0643, (barry.kyndall@epa.gov)

*Dr. Prather did not participate in this CASAC AAMM Subcommittee activity.

Attachment B

**U.S. Environmental Protection Agency
Clean Air Scientific Advisory Committee (CASAC)
Ambient Air Monitoring & Methods Subcommittee (AAMMS)
Public Teleconference**

**Wednesday, February 11, 2009 – 1:00 p.m. to 4:00 p.m. Eastern Time
Consultation on Key Issues Related to PM_{10-2.5} Speciation Monitoring**

1:00 p.m.	Convene Teleconference	Ms. Kyndall Barry, DFO
1:05 p.m.	Introductory Remarks and Review Agenda	Dr. Armistead (Ted) Russell Chair, CASAC AAMMS
1:10 p.m.	Overview of the Key Issues Related to PM _{10-2.5} Speciation Monitoring by EPA's Office of Air Quality Planning & Standards	Ms. Joann Rice Ambient Air Monitoring Group
1:35 p.m.	Public Comment Period	Ms. Barry (Facilitator)
1:45 p.m.	Committee Discussion	Chair and members

Topic

Discussant(s)

▪ **PM_{10-2.5} Speciation Measurement**

Dr. Judy Chow
Mr. George Allen
Dr. Kim Prather
Dr. Jay Turner
Dr. Yousheng Zeng
Dr. Barbara Zielinska

▪ **PM_{10-2.5} Species or Components**

Mr. Dirk Felton
Dr. Peter McMurry
Dr. Delbert Eatough
Mr. Eric Edgerton
Dr. Phil Hopke
Dr. Rudy Husar

▪ **Network Design**

Dr. Ken Demerjian
Mr. Rich Poirot
Mr. Bart Croes
Dr. Kazuiko Ito
Dr. Donna Kenski
Dr. Tom Lumley
Dr. Warren White

3:45 p.m.	Summary and Next Steps	Dr. Russell
4:00 p.m.	Adjournment	Ms. Barry

Attachment C

ENVIRONMENTAL PROTECTION AGENCY

ER-FRL-8589-8]

Environmental Impact Statements and Regulations; Availability of EPA Comments

Availability of EPA comments prepared pursuant to the Environmental Review Process (ERP), under section 309 of the Clean Air Act and Section 102(2)(c) of the National Environmental Policy Act as amended. Requests for copies of EPA comments can be directed to the Office of Federal Activities at 202-564-7146.

An explanation of the ratings assigned to draft environmental impact statements (EISs) was published in FR dated April 6, 2008 (73 FR 19833).

Draft EISs

EIS No. 20080415, ERP No. D-FHW-L40235-ID, I-90 Post Falls Access Improvements Project, Transportation Improve from Spokane Street Interchange through the State Highway 41 (SH-41) Interchange, Kootenai County, ID

Summary: EPA has no objections to the proposed project. Rating LO.

EIS No. 20080389, ERP No. DA-AFS-L65369-00, Southwest Idaho Ecogroup Land and Resource Management Plan, Provide Additional Information to Reanalyzes the Effects of Current and Proposed Management on Rock Mountain Bighorn Sheep Viability in the Payette National Forest 2003 FEIS, Boise National Forest, Payette National Forest and Sawtooth National Forest, Forest Plan Revision, Implementation, Several Counties, ID; Malheur County, OR and Box Elder County, UT.

Summary: EPA expressed environmental concerns about disease transmission between bighorn sheep and domestic sheep, the uncertainty in modeling, and monitoring details. Rating EC2.

EIS No. 20080442, ERP No. DS-AFS-J65469-CO, White River National Forest Travel Management Plan, Updated Information for the Preferred Alternative, To Accommodate and Balance Transportation Needs, Implementation, Eagle, Garfield, Gunnison, Mesa, Moffat, Pitkin, Rio Blanco, Routt and Summit Counties, CO.

Summary: EPA's previous concerns were resolved, therefore EPA has no objections to the proposed action. Rating LO.

Final EISs

EIS No. 20080487, ERP No. F-AFS-F65035-WA, Cayuga Project, Proposed Vegetation and Transportation Management Activities northeast of Clam Lake, Preferred Alternative Selected Alternative 7, Great Divide Ranger District, Chequamegon-Nicolet National Forest, Ashland County, WI.

Summary: EPA's concerns about marten habitat have been addressed. Therefore, EPA has no objections to the project.

EIS No. 20080488, ERP No. F-FHW-F40442-MI, Detroit River International Crossing Study, Propose Border Crossing System between the International Border Cities of Detroit, Michigan and Windsor, Ontario, Wayne County, MI.

Summary: EPA has no objections to the proposed project.

EIS No. 20080495, ERP No. F-USN-K10011-CA, Southern California (SOCAL) Range Complex, To Organize, Train, Equip, and Maintain Combat-Ready Naval Forces, San Diego, Orange and Los Angeles Counties, CA.

Summary: EPA continues to have environmental concerns about impacts to marine resources and ocean water quality from munitions.

EIS No. 20080501, ERP No. F-AFS-J65500-00, Wild and Scenic River Suitability Study for National Forest System Lands on the Ashley, Dixie, Fishlake, Manti-La Sal, Uinta and Wasatch-Cache National Forests in UT and Portion of National Forests extend into Colorado and Wyoming, several counties, UT, Montrose County, CO and Uinta County, WY.

Summary: No formal comment letter was sent to the preparing agency.

Dated: January 16, 2009.

Ken Mittelholtz,

Environmental Protection Specialist, Office of Federal Activities.

[FR Doc. E9-1395 Filed 1-22-09; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[FRL-8765-5]

Science Advisory Board Staff Office; Clean Air Scientific Advisory Committee (CASAC); Notification of Public Teleconferences; of the Ambient Air Monitoring & Methods (AAMM) Subcommittee

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency (EPA or Agency) Science Advisory Board (SAB) Staff Office announces two public teleconferences of the Clean Air Scientific Advisory Committee (CASAC) Ambient Air Monitoring & Methods Subcommittee (AAMMS or Subcommittee) to conduct consultations concerning ambient air monitoring issues related to the National Ambient Air Quality Standards (NAAQS) for ozone and particulate matter.

DATES: The meeting dates are Tuesday, February 10, 2009, from 11 a.m. to 2 p.m. (Eastern Time) and Wednesday, February 11, 2009, from 1 p.m. to 4 p.m. (Eastern Time).

FOR FURTHER INFORMATION CONTACT: Any member of the public who wishes to obtain further information concerning this public teleconference may contact: Ms. Kyndall Barry, Designated Federal Officer (DFO), EPA Science Advisory Board (1400F), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460; via telephone/voice mail: (202) 343-9868; fax: (202) 233-0643; or e-mail at barry.kyndall@epa.gov. General information concerning the CASAC can be found on the EPA Web site at <http://www.epa.gov/casac/>.

SUPPLEMENTARY INFORMATION:

Background: The Clean Air Scientific Advisory Committee (CASAC) was established under section 109(d)(2) of the Clean Air Act (CAA or Act) (42 U.S.C. 7409) as an independent scientific advisory committee. CASAC provides advice, information and recommendations on the scientific and technical aspects of air quality criteria and NAAQS under sections 108 and 109 of the Act. The CASAC is a Federal advisory committee chartered under the Federal Advisory Committee Act (FACA), as amended, 5 U.S.C., App. The CASAC Ambient Air Monitoring & Methods Subcommittee (AAMMS) was established in 2004 as a standing subcommittee of CASAC to provide advice and recommendations to the EPA Administrator on topics specific to ambient air monitoring, methods and networks. The Subcommittee will comply with the provisions of FACA and all appropriate SAB Staff Office procedural policies. Section 109(d)(1) of the CAA requires that the Agency periodically review and revise, as appropriate, the air quality criteria and the NAAQS for the six "criteria" air pollutants, including both ozone (O₃) and particulate matter (PM).

a. AAMMS Teleconference, February 10, 2009—Ozone Network Design

In March 2008, the final rule for the Ozone NAAQS was published (73 FR 16436). The rule revised both the primary and secondary standards and set identical, 8-hour standards of 0.075 ppm expressed to three decimal places for both public health and welfare. In the March 2008 rule, EPA committed to develop separate rulemaking to support changes in the monitoring network requirements based on the revisions of the primary and secondary O₃ NAAQS. EPA is also considering changes to the required O₃ monitoring season. EPA's Office of Air and Radiation (OAR) requested the consultative advice of the AAMMS on the options for network design and O₃ monitoring season to guide the development of potential monitoring requirements. Additional information on the O₃ monitoring issues is available on the OAR Web page at http://www.epa.gov/ttn/naaqs/standards/ozone/s_o3_index.html.

b. AAMMS Teleconference, February 11, 2009—Coarse Particle Speciation

In October 2006, EPA issued the final rule to revise both the primary and secondary NAAQS for PM (71 FR 61144). The Agency decided to retain PM₁₀ as the indicator for thoracic coarse particles as promulgated in July 1997 (62 FR 38652). The final rule establishes ambient air monitoring requirements for a PM_{10-2.5} indicator of thoracic coarse particles to support research on particle distribution, sources, and health effects. A new Federal Reference Method (FRM) was also promulgated in the rule for measuring the mass concentration of PM_{10-2.5} in ambient air. As part of the revisions to the Ambient Air Monitoring Regulations, PM_{10-2.5} speciation monitoring will be required at National Core (NCore) multi-pollutant monitoring stations by January 1, 2011. EPA OAR requested AAMMS consultative advice on the issues related to PM_{10-2.5} speciation and monitoring. Additional information on the monitoring issues specific to coarse particles is available on the OAR Web page at http://www.epa.gov/ttn/naaqs/standards/pm/s_pm_index.html.

Technical Contacts: Any technical questions concerning the indicator and ambient air monitoring issues related to the O₃ or PM NAAQS can be directed Mr. Lewis Weinstock, OAQPS, at phone: (919) 541-3661, or e-mail weinstock.lewis@epa.gov.

Availability of Meeting Materials: The Agency documents for both consultations will be posted on the EPA

Technology Transfer Network (TTN) Web site on the respective pages for the Ozone and PM NAAQS at <http://www.epa.gov/ttn/naaqs/>. Prior to the meetings, the agendas and other materials for these AAMMS teleconferences will be accessible through the calendar link on the blue navigation bar at <http://www.epa.gov/casac/>.

Procedures for Providing Public Input: Interested members of the public may submit relevant written or oral information for consideration on the topics included in this advisory activity. *Oral Statements:* In general, individuals or groups requesting an oral presentation at a public teleconference will be limited to three minutes per speaker, with no more than a total of 30 minutes for all speakers. Interested parties should contact Ms. Barry, DFO, in writing (preferably via e-mail), by February 6, 2009, at the contact information noted above, to be placed on the list of public speakers for this meeting.

Written Statements: Written statements should be received in the SAB Staff Office by the same date, so that the information may be made available to the CASAC Panel for its consideration prior to this teleconference. Written statements should be supplied to the DFO in the following formats: one hard copy with original signature and one electronic copy via e-mail (acceptable file formats: Adobe Acrobat PDF, MS Word, WordPerfect, MS PowerPoint, or Rich Text files in IBM-PC/Windows 98/2000/XP format).

Submitters are asked to provide versions of each document submitted with and without signatures, because the SAB Staff Office does not publish documents with signatures on its Web sites.

Accessibility: For information on access or services for individuals with disabilities, please contact Ms. Barry at the phone number or e-mail address noted above, preferably at least ten days prior to the meeting, to give EPA as much time as possible to process your request.

Dated: January 15, 2009.

Anthony F. Maciorowski,
Deputy Director, EPA Science Advisory Board Staff Office.

[FR Doc. E9-1396 Filed 1-22-09; 8:45 am]

BILLING CODE 6560-50-P

FEDERAL DEPOSIT INSURANCE CORPORATION**Notice of Agency Meeting**

Pursuant to the provisions of the "Government in the Sunshine Act" (5 U.S.C. 552b), notice is hereby given that at 10:03 p.m. on Thursday, January 15, 2009, the Board of Directors of the Federal Deposit Insurance Corporation met in closed session to consider matters relating to an open bank assistance transaction.

In calling the meeting, the Board determined, on motion of Vice Chairman Martin J. Gruenberg, seconded by Director John C. Dugan (Director, Comptroller of the Currency), and concurred in by Director Thomas J. Curry (Appointive), Director John M. Reich (Director, Office of Thrift Supervision), and Chairman Sheila C. Bair, that Corporation business required its consideration of the matters which were to be the subject of this meeting on less than seven days' notice to the public; that no earlier notice of the meeting was practicable; that the public interest did not require consideration of the matters in a meeting open to public observation; and that the matters could be considered in a closed meeting by authority of subsections (c)(4), (c)(8), (c)(9)(A)(ii), and (c)(9)(B) of the "Government in the Sunshine Act" (5 U.S.C. 552b(c)(4), (c)(8), (c)(9)(A)(ii), and (c)(9)(B)).

The meeting was held in the Board Room of the FDIC Building located at 550-17th Street, NW., Washington, DC.

Dated: January 15, 2009.

Federal Deposit Insurance Corporation.

Valerie J. Best,

Assistant Executive Secretary.

[FR Doc. E9-1360 Filed 1-22-09; 8:45 am]

BILLING CODE 6714-01-P

FEDERAL ELECTION COMMISSION

[Notice 2009-2]

Agency Procedures

AGENCY: Federal Election Commission.

ACTION: Reopening of comment period.

SUMMARY: This notice reopens the comment period for a Notice of public hearing on the policies and procedures of the Federal Election Commission. The comment period will be open until February 18, 2009. The Notice of public hearing addresses Federal Election Commission policies and procedures including, but not limited to, policy statements, advisory opinions, and public information, as well as various

Attachment D

Consultation on Coarse Particle ($PM_{10-2.5}$) Speciation Monitoring

Joann Rice

Presented to the CASAC AAMMS

February 11, 2009

PM_{10-2.5} Speciation Outline

- Monitoring Requirements
- Monitoring Objectives
- Measurement Issues
- Proposed Species and Analysis Methods
- Network Design

PM_{10-2.5} Monitoring Requirements

- In October 2006, EPA issued the final rule to revise both the primary and secondary NAAQS for PM
- The final rule established ambient air monitoring requirements for a PM_{10-2.5} indicator of thoracic coarse particles to support research on particle distribution, sources, and health effects
 - A new Federal Reference Method (FRM) was promulgated for PM_{10-2.5} mass in ambient air
 - PM_{10-2.5} speciation monitoring was required at NCore multi-pollutant monitoring stations by January 1, 2011
 - Speciation samplers must operate on at least a 1-in-3 day schedule and be collocated with PM_{2.5} speciation

PM_{10-2.5} Speciation Monitoring Objectives

- The primary objective for PM_{10-2.5} speciation data is to support further research in understanding the chemical composition and sources of PM₁₀, PM_{2.5}, and PM_{10-2.5}
- In addition, other PM_{10-2.5} data uses include:
 - Advancement of speciation monitoring methods in anticipation of wider use
 - Collection of composition data to inform health effect research studies
 - Use of speciation data to promote advancement of source attribution methods
 - Determination of spatial and temporal concentration variations in urban and rural environments

PM_{10-2.5} Speciation Measurements

- Several issues need to be addressed in order to develop a long-term PM_{10-2.5} speciation monitoring plan
- To support long-term PM_{10-2.5} speciation monitoring planning, EPA is developing a small pilot network
- Selection of target species, analysis methods, and sampling systems is a critical first step
- PM_{10-2.5} speciation measurements to date are limited and mostly done as part of research efforts using PM_{2.5} speciation analysis methods
- ORD research studies have uncovered issues with reconstructed mass using measured species
 - 10-50% of the mass was unaccounted for or unidentified in some locations

PM_{10-2.5} Speciation Measurements

- The current filter-based samplers are logical choices for PM_{10-2.5} speciation sampler design
- Possible filter-based sampler types include:
 - PM_{10-2.5} by difference using FRMs
 - Identical PM₁₀/PM_{2.5} FRMs at 16.7 Lpm
 - Dichotomous
 - One sampler with fine and coarse flows of 15 and 1.7 Lpm
 - MetOne SASS/SuperSASS PM_{2.5} speciation
 - One sampler with PM₁₀/PM_{2.5} inlets at 6.7 Lpm
 - URG3000N PM_{2.5} carbon
 - Identical PM₁₀/PM_{2.5} samplers at 22 Lpm

PM_{10-2.5} Speciation Measurement Charge Questions

- *Are there additional PM_{10-2.5} target species or sampling methods that can be used to help identify the source of unidentified mass in order to obtain better mass closure?*
- *Which sampler types should be included or excluded from the pilot network design? Are there other sampling devices not listed here that should be considered?*
- *What are the sampling artifacts that may be encountered and how should they be addressed?*

PM_{10-2.5} Speciation Measurement Charge Questions (cont'd)

- *Is speciation by the difference method problematic and if so what specific issues make it problematic?*
- *The current and most widely used PM_{2.5} speciation sampler is the MetOne SASS with a flow rate of 6.7 Lpm. If this sampler was configured for PM_{10-2.5} by difference, would the flow rate be problematic, especially if the need to compare reconstructed mass to the mass collected by the PM_{10-2.5} FRM is important?*

PM_{10-2.5} Proposed Species and Analysis Methods

Table 1. List of Proposed Filter Types, Species, and Analysis Methods		
Filter Type and Species		Analysis Method
Teflon	Mass	Gravimetric
	Elements	Vacuum XRF
	Ions (Na, Ca, Cl, K, SO ₄ , NH ₄ , NO ₃) *	Water extraction with Ion Chromatography (IC)
	Total Protein (Surrogate for total biological)	Protein assay (NanoOrange®) of IC extract above with Fluorometry and/or SEM
Quartz	Organic and Elemental Carbon	Thermal Optical Analysis (IMPROVE_A TOT/TOR)
	Carbonate Carbon	Acidification followed by TOA
* Any volatile species present will be compromised by vacuum XRF		

PM_{10-2.5} Proposed Species and Analysis Methods

- Nitrate and sulfate ions have been identified as only minor components of PM_{10-2.5} in some locations
 - It is not clear whether ions are needed to support research or data use needs for PM_{10-2.5} speciation
- Potential issues with the XRF measurement of particles have been identified
 - Large or coarse particle size effects may be problematic for multi-element analysis by XRF
- PM_{10-2.5} organic and elemental carbon (OC and EC) species can be measured using the same thermal-optical analysis (TOA) as used for PM_{2.5}; however, the soil component of PM_{10-2.5} is expected to be significant where interference by metal oxides (e.g., iron oxides) may be of concern
- Biological materials were listed as target species of importance in the 2004 Criteria Document for the last PM NAAQS review
 - It is not clear if these biological materials should be measured and how they should be quantified

PM_{10-2.5} Species and Analysis Charge Questions

- *Table 1 provides a list of proposed PM_{10-2.5} species. Which of these species are most important? Are there important PM_{10-2.5} species or components missing from this list?*
- *If ions are important PM_{10-2.5} species to measure, what ions should be on the target list? Are nitrate or ammonium ions important?*
- *Of the proposed analysis methods in Table 1, which methods should be excluded or included? Are there important analysis methods missing from the list?*

PM_{10-2.5} Species and Analysis Charge Questions (cont'd)

- *If biological materials are important, is scanning electron microscopy (SEM) on Teflon filters sufficient to quantify and identify these species? Is a total protein assay technique (or something similar) important to obtain a quantitative indicator of the total biological material present?*
- *Can the complication of particle size and absorption effects in XRF be resolved using absorption correction factors? If not, what other analysis methods should be considered for PM_{10-2.5} elements?*
- *Are metal oxides a significant source of interference in thermal-optical analysis (TOA) of PM_{10-2.5} for OC and EC? If so, how should the interference be addressed?*

Network Design

- The final monitoring rule contains a requirement for $PM_{10-2.5}$ speciation at NCore
- The NCore will have about 75 sites mostly in urban areas, with a subset of about 20 rural sites
- NCore design was based on representative monitoring to provide community-wide characterization of exposure and leveraging with other measurement systems
- The appropriateness and representativeness of the NCore sites for long-term $PM_{10-2.5}$ speciation monitoring needs to be determined



Proposed NCore as of October 2007

Network Design Charge Questions

- *Are sites with high PM_{10} and low $PM_{2.5}$ good candidate sites for $PM_{10-2.5}$ speciation? Given that there will be some urban and rural NCore monitoring sites with $PM_{10-2.5}$ speciation, are there other factors to consider in selecting the pilot monitoring and long-term sites or locations?*
- *If there is an opportunity to modify the NCore $PM_{10-2.5}$ speciation monitoring requirements during a future rulemaking, should changes to the network design be considered? For example, changing the total number of required monitors and/or the required locations?*