March 5, 2006

Highlights of the Emissions Measurement Center's Activities for 2005/2006

U.S. Environmental Protection Agency
Office of Air Quality Planning and Standards
Air Quality Assessment Division
Measurement Technology Group
(www.epa.gov/ttn/emc)

Below are highlight items involving emission test method development, evaluation, validation, publication and other **Emissions Measurement Center (EMC)** activities during the past twelve months. The information is generally organized by publication category and other activities.

A. New and Revised 40 CFR Part 60, Appendix A, Test Methods

- **Instrumental Test Methods Revisions** - Methods 3A, 6C, 7E, 10, and 20 of 40 CFR Part 60, Appendix A are instrumental test methods that have been revised to harmonize their equipment and performance criteria. Inconsistent acceptance criteria for performance test data and calibration gas quality have been made uniform. Other improvements address low-concentration measurements and alternative performance evaluating techniques. Revisions to these methods were proposed on October 10, 2003 (68 FR 58838) and a significant number of comments were received. The comments have been considered and addressed and the final rule package is presently awaiting the EPA Administrator's signature. We expect promulgation by April 2006. **(Foston Curtis 919/541-1063)**

- **Method 18 Revisions** - Method 18 utilizes gas chromatography coupled with various sampling procedures to measure gaseous organic emissions from stationary sources. In January of 2004, we met with interested stakeholders to discuss their concerns with real-life application of Method 18 and to hear other suggestions for improvements in the method. In March of 2004, we presented our technical perspective on the stakeholder recommendations to Stationary Source Sampling and Analysis of Air Pollutants Conference participants. Resources are not yet available for work on a regulatory package to propose revisions to Method 18. **(Rima Howell 919/541-0443 and Gary McAlister 919/541-1062)**

- **Method 23 Revisions** – EPA's Office of Solid Waste (OSW) is in the process of revising their procedure, SW-846 Method 8290, for analyzing samples for dioxins and furans. As a part of this process we are planning to revise Method 23. The revised Method 23 will only describe the sampling procedures for collecting the dioxin/furan sample. It will rely on the revised SW-846 Method 8290 for the appropriate analytical procedures. In addition, OSW plans to remove Method 0023A from their SW-846 manual and will use the revised Method 23 as their sampling procedure. (**Gary McAlister 919/541-1062)**

- **Method 24 Revisions** - Method 24 describes procedures for determining the volatile matter content, water content, density, volume solids, and weight solids of surface coatings, typically referencing ASTM procedures for conducting these analyses. In an EPA-sponsored study, we completed a round-robin sampling and analysis evaluation of a new procedure for determining the volatile organic content of water-based coatings and drafted a method

revision based on the results. We are now working with the Adhesive Council which conducted a round-robin evaluation of a headspace procedure for water-based coatings. The Council drafted a method and is working to get it accepted by ASTM. Their draft did not pass the ASTM balloting process and is being revised based on new lab results. Following successful balloting, we plan to propose it as an addition to Method 24 in 2007. **(Candace Sorrell 919/541-1064)**

B. New and Revised 40 CFR Part 60, Appendix B, Performance Specifications for Continuous Opacity and Gaseous Monitoring Systems

- **Performance Specification 11** - Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources (PS-11) - These requirements for particulate matter (PM) continuous emissions monitoring systems (CEMS) were promulgated on Monday, January 12, 2004 (69 FR 1786). PS-11 is used for evaluating the acceptability of a PM CEMS at the time of or soon after installation, and whenever specified in a source's applicable regulation(s). This performance specification requires site-specific correlation of the PM CEMS response against manual gravimetric Reference Method measurements (e.g., Methods 5, 5B, 5i, or 17, 40 CFR 60, Appendix A). PS-11 outlines the procedures and acceptance criteria for installation, operation, calculations, and reporting of data generated during a PM CEMS correlation. Currently, development of a guidance document for PM CEMS is underway; it should be available in the summer of 2006. **(Dan Bivins 919/541-5244)**

- **Performance Specification 12A** - Specifications and Test Procedures for Total Vapor Phase Mercury Continuous Emission Monitoring Systems in Stationary Sources (PS-12A) - The EMC recently completed a long-term field test program to investigate the performance and reliability of six commercially available mercury CEMS at a coal-fired utility boiler controlled by selective catalytic reduction technology, an electrostatic precipitator, and a wet scrubber. Results and experience from this test program were used to finalize PS-12A as well as mercury monitoring requirements in 40 CFR Part 75; PS-12A and the Part 75 requirements were promulgated in conjunction with mercury standards for coal-fired boilers in the Clean Air Mercury Rule on May 18, 2005 (70 FR 28606). **(Bill Grimley 919/541-1065 and Robin Segall 919/541-0893)**

- **Performance Specification for Predictive Emissions Monitoring Systems (PEMS) (PS-16)** - Performance Specification 16 provides performance criteria for evaluating and accepting PEMS. PEMS are typically used to predict emissions from combustion processes (e.g., NO_x from gas boilers, turbines, and internal combustion engines) through the monitoring of process parameters. Predictive systems have been allowed for a number of years on the State level and the EPA has allowed their use in recently-promulgated rules. We proposed PS-16 on August 8, 2005 (70 FR 45608) and expect to promulgate it in August of 2006. **(Foston Curtis 919/541-1063)**

- **Draft Performance Specifications and QA/QC for Continuous Parameter Monitoring Systems (PS-17)** – See Emissions Factors and Policy Applications Center Highlights

C. New and Revised 40 CFR Part 60, Appendix F, Quality Assurance Procedures (for Continuous Monitoring Systems)

- **Procedure 3 - Quality Assurance Requirements for Continuous Opacity Monitoring Systems at Stationary Sources** - As a result of the comments received after re-opening the comment period for the rulemaking formerly known as "Method 203," which includes requirements for ongoing quality assurance and quality control evaluations of COMS used as continuous compliance monitoring systems, we decided to form a stakeholders' group to undertake the task of re-writing this rule package. The stakeholders' group was comprised of opacity monitor manufacturers, State/local agencies, EPA Regional personnel, as well as representatives from owners/operators. Method 203 has been rewritten as Procedure 3, and was re-proposed as an addition to 40 CFR part 60, appendix F in the Federal Register on May 8, 2003 (68 FR 24692). ASTM Committee D-22 is now considering adding these QA/QC requirements to the ASTM standard referenced in Performance Specification 1 (40 CFR 60, Appendix B). **(Tom Logan 919/541-2580)**

- **Procedure 2 - Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources** - As an accompaniment to PS-11 for PM CEMS we promulgated ongoing quality assurance and quality control requirements for using PM CEMS as continuous compliance monitoring systems (69 FR 1786, 1/12/04). The guidance being developed for PM CEMS will also address Procedure 2 and should be available in the summer of 2006. **(Dan Bivins 919/541-5244)**

D. New and Revised 40 CFR Part 63, Appendix A, Test Methods

- **Method 301 Revisions** - Method 301 is the field data validation protocol promulgated on December 29, 1992. The method provides a framework and performance criteria for validating emissions test data (and methods) when no EPA method is available or when proposing an alternative to an existing test method. Comments and questions from the user community have prompted preparation of technical revisions and clarification to the method. The proposed amendments to Method 301 appeared in the Federal register on December 22, 2004. We received comments from about fifteen parties and several of the comment letters were extensive. We expect to promulgate the amendments sometime in the Fall of 2006. **(Gary McAlister 919/541-1062)**

- **Method 324-Determination of Vapor Phase Mercury Emissions from Stationary Sources Using Dry Sorbent Trap Sampling (Now Appendix K to 40 CFR Part 75)** - Method 324 was proposed along with PS-12A on January 30, 2004 (68 FR 4652) as part of the Clean Air Mercury Rule. During the field testing programs to demonstrate commercially available mercury CEMS at coal-fired utility boilers, EMC also evaluated procedures for long-term integrated mercury monitoring method using sorbent trap sampling. Results of this testing along with comments received on proposed Method 324 were used to finalize procedures for sorbent trap mercury monitoring which were published as Appendix K to 40 CFR Part 75 along with the Clean Air Mercury Rule on May 18, 2005 (70 FR 28606). **(Bill Grimley 919/541-1065 and Robin Segall 919/541-0893)**

E. New and Revised 40 CFR Part 51, Appendix M, Test Methods

- **Methods 203A, B, and C - Visual Determination of Opacity of Emissions from Stationary Sources for Time-Averaged, Time-Exception, and Instantaneous Limitation Regulations** -These methods are intended to provide State and Local agencies with an expanded array of data reduction procedures to determine compliance with various types of

State Implementation Plan (SIP) opacity regulations. The data reduction procedures in Methods 203A, 203B, and 203C of Appendix M of Part 51 (Preparation, Adoption, and Submittal of Implementation Plans) constitute the primary difference between these methods and Method 9 of Appendix A of 40 CFR, Part 60. These methods were proposed in 1994 and are expected to be promulgated by April of 2006. **(Robin Segall 919/541-0893)**

- **Method 207 – Method for Measuring Isocyanates in Stationary Source -**This method is applicable to the collection and analysis of 2,4-Toluene Diisocyanate, 1,6-Hexamethylene Diisocyanate, Methylene Diphenyl Diisocyanate, and Methyl Isocyanate in emissions from manufacturing processes. The gaseous and/or aerosol isocyanates are withdrawn from an emissions source at an isokinetic sampling rate and collected in a multi-impinger sampling train with derivatizing reagent in toluene and charcoal. The impinger contents are concentrated to dryness under vacuum, brought to volume in acetonitrile and analyzed by high pressure liquid chromatography. This method was proposed on December 8, 1997 and will be promulgated sometime in 2006. **(Gary McAlister 919/541-1062)**

F. Other Test Methods - These methods, which are published on the EPA website at www.epa.gov/ttn/emc/tmethods.html, are methods which have not yet been subject to the Federal rulemaking process. Each of these methods, as well as the available technical documentation supporting them, have been reviewed by the Emission Measurement Center staff and have been found to be potentially useful to the emission measurement community. The types of technical information reviewed include field and laboratory validation studies; results of collaborative testing; articles from peer-reviewed journals; peer-review comments; and quality assurance (QA) and quality control (QC) procedures in the method itself. These methods may be considered for use in Federally enforceable State and local programs (e.g., Title V permits, State Implementation Plans (SIP)) provided they are subject to an EPA Regional SIP approval process or permit veto opportunity and public notice with the opportunity for comment. The methods may also be considered as candidates to be alternative methods to meet Federal requirements under 40 CFR Parts 60, 61, and 63; however, they must be approved as alternatives under 60.8, 61.13, or 63.7(f) before a source may use them for this purpose. The methods are available for application without EPA oversight for other non-EPA program uses including state permitting programs and scientific and engineering applications. The EPA strongly encourages the submission of additional supporting field and laboratory data as well as comments in regard to these methods.

- **CTM-039 Measurement of PM2.5 and PM10 Emissions by Dilution Sampling (Constant Sampling Rate Procedures) -** This method uses the same in stack cyclone separation described in CTM-040, however, procedures for characterizing the condensable particulate matter are improved and expanded with the removal of the in-stack 47-mm filter, the addition of a system to dilute and cool the sample gas, and the addition of a 142-mm filter to collect the filterable PM2.5 and the particulate matter condensed through the dilution and cooling of the sample gas. Because the sample gas is cooled and diluted to near ambient conditions, aliquots of the diluted sample gas can be extracted prior to the 142-mm filter for collection and analysis by ambient air methodologies. These procedures have been evaluated at coal fired utilities. **(Tom Logan 919/541-2580)**

- **CTM-040 - Method for Determination of PM10 and PM2.5 Emissions (Constant Sampling Rate)** - This method combines Method 201A (40 CFR 51, Appendix M) with the PM2.5 cyclone from a conventional five-stage cascade cyclone train that includes five

cyclones of different diameters in series. The PM2.5 cyclone is inserted between the PM10 cyclone and the filter of the Method 201A train. Stack gas is sampled at a predetermined constant flowrate through the in-stack cyclones and filter. Once the sample is obtained, the uncombined water is removed and gravimetric analysis is used to determine the mass of particulate for each size fraction. This method was originally posted as PRE-004 on the EMC web site. **(Tom Logan 919/541-2580)**

- **CTM-041 - Determination of Volumetric Gas Flow in Rectangular Duct or Stacks Taking Into Account Velocity Decay Near the Stack or Duct Walls** - An effort is in progress harmonize flow decay measurements of CTM-041 for rectangular ducts with those of **Method 2H** for circular ducts. The utility industry has provided high quality data showing how flow decay at the walls of rectangular ducts can be determined and these procedures are consistent with the Method 2H requirements. **(Tom Logan 919/541-2580)**

- **PRE-008 - Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems** - This preliminary method describes an approach for determining the opacity of visible emissions through the use of digital photographs taken of the emission source plume. The photographs are processed using computer software that determines percent opacity using information available from the digital or digitized images. The positioning of the camera is similar to the observer requirements of Method 9 (40 CFR 60, Appendix A) as are the reporting requirements. This method is still in a development phase and comments are sought as to how these procedures could be improved. **(Tom Logan 919/541-2580)**

- **PRE-009 - Conceptual Method for Determination of Total Vapor Phase Mercury Emissions from Coal-Fired Combustion Sources (Instrumental Analyzer Procedure)** - EPA has recently promulgated the Clean Air Mercury Rule (May 18, 2005, 70 FR 28606) which establishes standards for mercury emissions from coal-fired electric utility boilers. The rule relies on monitoring of mercury which in turn requires certification of the mercury monitors using a reference method. The promulgated reference method, known as the Ontario Hydro (OH) method, which utilizes a wet chemical approach typically requires several weeks until the results are available. To provide a more practical and timely alternative to the OH method, EPA has drafted a conceptual instrument-based method for mercury and published it on our website at www.epa.gov/ttn/emc to solicit collection of data to evaluate its procedures and performance in preparation for revision and proposal as a reference method. **(Robin Segall 919/541-0893, Bill Grimley 919/541-1065 and Jeff Ryan 919/541-1437)**

- **Optical Remote Sensing Method to Determine Emission Flux from Fugitive Emission Sources (Radial Plume Mapping Protocol)** - No standard protocol exists for making measurements of air emission flux from fugitive or nonpoint sources. Current estimation techniques based on emission factors are imprecise and may overestimate, while earlier point measurement or remote sensing approaches relying on reverse dispersion modeling are prone to modeling errors. Starting in 2002, EMC participated in a project to validate a path-integrated optical remote sensing (PI-ORS) based approach to locate and quantify fugitive emissions. The approach evaluated utilizes multiple beam paths and optimizing algorithms to yield a time-averaged, mass-equivalent concentration field across a contaminant plume from which, using wind data, the emission rate can be determined. In 2004 a successful field validation testing program of the approach using open path FTIR and controlled releases of

various gases was completed. The project was funded by DoD's Environmental Security Technology Certification Program to the Air Force and carried out by its contractor, ARCADIS; EMC provided regulatory advice and is about to publish the peer-reviewed protocol for conducting these measurements on our website at: www.epa.gov/ttn/emc. **(Robin Segall 919/541-0893)**

G. Other Emissions Measurement Projects

- **Smart Leak Detection and Repair** - The current work practice standard for assessing process equipment leaks under 40 CFR Parts 60, 61, and 63 requires the use of an instrument meeting the performance specifications of EPA Method 21. This work practice standard is based on 25-year-old techniques. Innovative technology is being developed which we believe can provide at least equal, if not better, environmental protection than that which is being provided by the current work practice. API has provided field tests and laboratory data to assist in demonstrating the performance of infra-red camera technology to image leaks from valves, flanges, compressors, and other similar equipment. EPA is working on a regulatory proposal which will take comment on a voluntary alternative work practice for finding leaking equipment using optical imaging. **(Tom Logan 919/541-2580 and Bill Grimley 919-541-2580)**

- **CEMS Cost Model** – This model provides initial costs and annual operating and QA/QC costs for continuous emissions monitoring systems (CEMS). The last update of the model was done in 1995. This latest update will add mercury CEMS and bag leak detection monitoring system costs as well as updated cost values to other inputs to the model. The model will also be converted to a new format utilizing an MS Excel spreadsheet. The new model should be available on the EMC website by May 2006. **(Dan Bivins 919/541-5244)**

- **Stationary Source Audit Program (SSAP) Database** - EMC has implemented an electronic database for use by Federal, State, Local, and Tribal Agency personnel to electronically order and receive pass/fail notice on audit samples. The database compiles the audit results in several report formats that allow the QA Team and Agency staff to review the results for particular types of audit samples. Currently, there are audit materials for Methods 6, 7, 8, 12, 13A and 13B, 18, 23, 24 (inks and solvents), 25, 26, 26A, 29, 101A, and 315. Registration requests can be submitted to Candace Sorrell at the e-mail address or telephone number below. The EMC QA team also conducts teleconference calls on the first Tuesday in every month from 1:30-3:30 pm (EST) to discuss audit and other emission testing issues. Agendas and minutes for these conference calls can be obtained by contacting Candace. **(Candace Sorrell 919/541-1064)**

- **ASTM Activity** - EMC contacts participate as committee members on ASTM Subcommittees (e.g., D22-03 and E56-04) primarily to encourage development of new stack test methods where we anticipate a future need that is not met by a current EPA method. D6831-02 Standard Test Method for Sampling and Determining Particulate Matter in Stack Gases Using an In-Stack, Inertial Microbalance and D6784-02 Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method) are successful examples falling into this category. In addition, EPA considers all available voluntary consensus methods in the process of rulemaking and offers appropriate methods as regulatory alternatives. A new effort of the E56-04 Subcommittee is focusing on development of draft standards for

particulate matter from masonry and outdoor wood heaters and metal fireplaces. Final standards are expected in 2007/2008. **(Dan Bivins 919/541-5244, Tom Logan 919/541-2580 and Mike Toney 919/541-5247)**

March 5, 2006

Emissions Factors and Policy Applications Center Highlights for 2005/2006

Environmental Protection Agency
Office of Air Quality Planning and Standards
Sector Policies and Programs Division
Measurement Policy Group
(www.epa.gov/chief/efpac)

Below are highlight items and other **Emissions Factors and Policy Applications Center (EFPAC)** activities involving emission monitoring and other quantification protocols occurring during the past twelve months.

- **Electronic Reporting Tool (ERT)** - A Microsoft Access desktop application that is an electronic alternative for paper reports documenting EPA's emissions measurement Methods 1 through 5 and Method 202 for stationary sources. The ERT replaces the time-intensive manual preparation and transcription of stationary source emissions test plans and reports currently performed by contractors for emissions sources and the time-intensive manual quality assurance evaluations and documentation performed by State agencies. The ERT provides a format that 1) highlights the need to document the key information and procedures required by the existing EPA Federal Test Methods; 2) facilitates coordination among the source, the test contractor, and the regulatory agency in planning and preparing for the emissions test; 3) provides for consistent criteria to quantitatively characterize the quality of the data collected during the emissions test; 4) standardizes the reports; and 5) provides for future capabilities to electronically exchange information in the reports with facility, State or Federal data systems. In addition to improving the content and quality of source emissions test reports, the ERT should reduce the workload associated with manual transcription of information and data contained in the report, the resources required to store and access the reports; and redundant efforts in using the data for multiple purposes. Future versions of the ERT will provide for electronic preparation and data transfer from other EPA and State test methods. The current version of the ERT is available for review and comment at http://www.epa.gov/ttn/chief/ert/ert_tool.html. Contact: Ron Myers at myers.ron@epa.gov or (919) 541-5407.

- **WEB-FIRE** - The Internet version of the emissions Factor Information Retrieval System (FIRE) is now available for review and comment at http://www.epa.gov/ttn/chief/efpac/index.html. The FIRE application web site provides fast and user-friendly access to the Agency's air emissions factors information. In time FIRE will replace the software application, FIRE version 6.25, and the Microsoft Access version of the database. An Internet version of FIRE will allow more frequent updates and easier access. The Internet site includes a list of frequently asked questions and describes in more detail the functions of the FIRE program and how the emissions factors are derived. The WEB-FIRE also includes more thorough and directed guidance on the uncertainties associated with applying emissions factors and the alternatives to emissions factors, specifically direct emissions measurements and monitoring. Contact Michael Ciolek, ciolek.michael@epa.gov, 919-541-4921

- **Revisions to Part 64, Compliance Assurance Monitoring,** - We have drafted rulemaking entitled "Proposal of Revisions to Part 64 - Compliance Assurance Monitoring Rule," which revises Part 64 that would govern how states implement monitoring in the title V operating permit program. The revised rules would affect nearly every pollutant-specific emissions unit at title V

sources. The rule would define more specifically when monitoring may be needed on a pollutant-specific emissions unit basis and set forth a process by which sources and permitting authorities would assess existing monitoring and create periodic monitoring, as needed, to provide a reasonable assurance of compliance with applicable requirements. This proposal is part of the Agency's four-step approach to addressing monitoring in title V permits as explained in final rule addressing §§ 70.6(c)(1) and 71.6(c)(1) of 40 CFR parts 70 and 71 (referred to as the Umbrella Monitoring Rules in the January 22, 2004 Federal Register notice (69 FR 3202). Contact: Peter Westlin, westlin.peter@epa.gov, 919-541-1058

- **Monitoring Knowledge Base** - EPA's Monitoring Knowledge Base web-site provides a user-friendly compilation of information about air pollution control technologies and the monitoring techniques applicable for establishing the ongoing compliance operations of a range of air pollution control measures. The MKB presents the monitoring information is by industry type and by control technique. The initial version of the MKB focuses on the printing and publishing industry and addresses the technologies and monitoring of activated carbon adsorbers, capture systems, catalytic oxidizers, compliant inks and coatings, condensers, cyclones, electrified filter beds, electrostatic precipitators, fabric filters, thermal oxidizers, and wet scrubbers of r particulate and gaseous control. Contact: Barrett Parker, parker.barrett@epa.gov, 919-541-5635

- **TANKS** - TANKS is a Windows-based computer software program collaborative effort with API that estimates volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions from fixed- and floating-roof storage tanks. We have made available an updated version of TANKS (Version 4.09d) at http://www.epa.gov/ttn/chief/software/tanks/index.html. The program is now compatible with all versions of MS Access. The program installation has been streamlined and the program files are smaller. TANKS displays and prints reports with an Internet browser. The report formats have not changed. Improvements include 1) updating the chemical data with missing CAS numbers; 2) addition of new compounds; 3) correcting Antoine's coefficients for several compounds; 4) addition of a new partial speciation profile for gasoline oxygenated with ethanol; and correcting meteorological data. TANKS is based on the emission estimation procedures from Chapter 7 of EPA's Compilation Of Air Pollutant Emission Factors (AP-42). In the future, EPA does not expect to provide updated versions of TANKS beyond Version 4.09d nor support the current version of TANKS in the future once it becomes outdated. Therefore, EPA anticipates that the private sector may want to develop new/improved software versions for use by anyone currently using the TANKS program. Our group intends to develop and implement an EPA approval protocol/process for endorsing new EFs including any software developed proposed to estimate the organic vapor emissions from storage tanks from outside entities. We have not developed specific assessment protocols for software such as TANKS but envision that verifying the protocols will entail simulations testing and results verification, at a minimum. We fully expect that in providing EPA-approval to such third-party developed products, we will alleviate acceptance issues that state/local/federal entities might have with vendor-developed EFs and other tools. Contact: Michael Ciolek, ciolek.michael@epa.gov, 919-541-4921

- **Inadequate Monitoring (advanced notice of proposed rulemaking)** - On February 16, 2005 (Volume 70, Number 31)], we published and ANPR asking for public comment to help us identify monitoring in applicable requirements under the Clean Air Act (Act) that is potentially inadequate with respect to the statutory monitoring requirements for operating permits issued under title V of the Act. The ANPR also requested public comment on ways to improve such monitoring. The goal is to provide for improvements to existing inadequate monitoring through rulemakings to revise the applicable requirements themselves or through other programmatic

approaches will be more effective, more equitable, and more efficient, where necessary, than by addressing inadequate monitoring on a case-by-case basis in the issuance and renewal of title V operating permits. To inform EPA's consideration of improvements to existing monitoring, today's ANPR seeks stakeholder input to identify inadequate monitoring in certain Federal standards and State implementation plan (SIP) rules and to suggest specific ways to improve such monitoring. We are reviewing and preparing responses to comments received in response to the ANPR. Contact: Barrett Parker, parker.barrett@epa.gov, 919-541-5635

- **Emissions Factors and Emissions Measurement Uncertainty Assessment** - We are investigating ways to assess and reduce the uncertainty associated with using emissions factors, such as those contained in AP-42 particularly those that are based on emissions testing data. We have applied statistical processes to assess the uncertainty associated with emissions factors for several well documented chapters of AP-42. The results from the statistical analysis indicate the potential for uncertainty bounds of several orders of magnitude for the 75th percentile and the 90th percentile adjustments on emissions factors for gaseous criteria pollutants, hazardous air pollutants (HAP), and particulate matter (PM). We have begun to develop possible approaches emissions factors can be adjusted based on sample size, pollutant, and presence/absence of add-on control devices. Contact: Barrett Parker, parker.barrett@epa.gov, 919-541-5635

- **Open Path Fugitive Leak Detection** – We have been working with various groups within OAQPS and externally to conduct assessments of emissions from gasoline dispensing facilities (GDF). EPA plans to develop rules, policy and guidance to assist with the reduction of contamination from underground storage tanks and to reduce vapor leaks from vent pipes and gasoline pump refilling activities. We developed two documents that will assist in developing policy and guidance; the first is an options paper that will establish a schedule for removing Stage II vapor recovery systems (VRS) from GDFs and the second is guidance for automobile manufacturers who are interested in obtaining waivers to remove Stage II VRS. We conducted testing at GDF using open path monitoring equipment and will provide a summary report of the monitoring protocol and its efficacy. Stage II Vapor Recovery Systems – Options Paper, Guidance for Waiving Stage II Vapor Recovery Systems for Automobile Manufacturers, Conduct Stage II Monitoring & Prepare Final Report, Guidance Document for Reducing VOC and HAP Emissions from Gas Stations on Tribal Lands, Develop open path monitoring protocol for gas stations Contact**:** Annabelle Allison, allison.annabelle@epa.gov, 919-541-0708. For Stage I Monitoring to Support Area Source Rule, contact Steve Shedd, shedd.steve@epa.gov, 919-541-5397

- **Interpretive Rule for Parts 70/71 Monitoring** - We are preparing to publish "Interpretive Rulemaking to Clarify the Scope of Certain Monitoring Requirements for State and Federal Operating Permits Programs." This action will request comments on a proposed interpretation of certain existing regulatory language relative to the need to address the sufficiency of existing monitoring requirements included in State and federal operating permits programs developed under title V of the Clean Air Act (Act). Specifically, our proposed interpretation is that §§ 70.6(c)(1) and 71.6(c)(1) of 40 CFR parts 70 and 71 (previously referred to as the Umbrella Monitoring Rule) do not provide a basis for assessing the adequacy of or adding monitoring requirements to operating permits, independent of such monitoring required under existing federal air pollution control rules and State implementation plan (SIP) rules (i.e., monitoring required under applicable requirements), including monitoring required under part 64 (the compliance assurance monitoring, or CAM, rule) where it applies, and such monitoring as may be required to fill gaps under the separate periodic monitoring requirements of the operating permits rules. We will also formally withdraw a September 17, 2002 proposal to revise these paragraphs

in parts 70 and 71. Contact: Peter Westlin, westlin.peter@epa.gov, 919-541-1058

- **Draft Performance Specifications for Continuous Parameter Monitoring Systems (PS-17) and QA/QC (Procedure 4 of Appendix F)** - Our newer emissions standards (e.g., MACT and NSPS) frequently include requirements for monitoring of process or control device operational parameters and for having the operator to stay within site-specific or rule-specific operating ranges. We recognized the need for performance specifications for installing, operating and maintaining these parametric monitoring systems (e.g. temperature, pressure, pH, liquid flow, conductivity) and have begun work on drafting performance specifications and quality assurance requirements. We expect to have documents ready for proposal and public review in the summer of 2006. Contact: Barrett Parker parker.barrett@epa.gov, 919-541-5635

- **Continuous Monitoring of Primary $PM_{2.5}$ -** We have underway a project to review the technologies available for monitoring continuously primary particulate matter from stationary sources including both filterable and condensable materials. Included in the review are continuous dilution sample collection systems used in combination with continuous mass measurements. We expect a report on the study with recommendations for future work in early 2006. Contact: Ron Myers, myers.ron@epa.gov, 919-541-5407

- **Implementing Testing Methods Appropriate for Measuring $PM_{2.5}$** - On Tuesday, November 1, 2005 (Vol. 70, No. 210), we published the Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards. In that rulemaking, we discuss the applicability of emissions testing methods to demonstrating compliance with local control measures for primary particulate matter in nonattainment areas and the need to revise which stationary source test methods would apply. Information available indicates that the majority of existing SIPs specify the use of stationary source test methods that quantify only filterable particulate matter. In implementing the NAAQS, we recommended that the use of EPA Method 202 (with appropriate options) combined with EPA Method 5 or EPA Method 17 or Method 201 or 201A provides a reasonable indication of total particulate matter emissions for the majority of stationary emission sources. We also noted the availability and applicability of Conditional Test Method 039 - Measurement of PM 2.5 and PM 10 Emissions by Dilution Sampling (Constant Sampling Rate Procedures). We intend to develop detailed guidance on the selection and application of methods appropriate for implementing the NAAQS once we review the comments and develop the final rule. Contacts: Ron Myers and Barrett Parker, myers.ron@epa.gov, parker.barrett@epa.gov, 919-541-5407 or 5635