Measurement Technology Group Updates:

Test Methods Update Rulemakings – We continually collect and catalogue errors and other necessary revisions to our test methods, performance specifications, and associated regulations in 40 CFR parts 51, 60, 61, and 63. Many of the revisions are brought to our attention by affected parties and end users. Our most recent test methods update rule was promulgated on November 14, 2018 (83 FR 56713). The rule includes corrections to inaccurate testing provisions, updates to outdated procedures, and approved alternative procedures that provide testers enhanced flexibility. The rule addresses Methods 2B, 5, 5B, 5I, 7, 8, 18, 22, 26, 26A, 201A, 204, 205, 303, 308, 320, 323, 325A, and 325B; Performance Specifications 1, 2, 3, 11, 15, and 18; and Procedure 1 of Appendix F.

Contact: Lula Melton, MTG, melton.lula@epa.gov

Broadly Approved Alternative Test Methods – These alternative test method approvals, published on the EPA/EMC website at https://www.epa.gov/emc/broadly-applicable-approved-alternative-test-methods, are broadly applicable alternatives to the methods required under 40 CFR parts 59, 60, 61, 63, and 65 as set forth in the General Provisions and/or subparts therein. As such, they may be used by sources for determining compliance with the requirements of these parts as per the applicability provisions specified in the approval without further EPA approval; however, the approval letter or memo should be included in the test plan and test report. The Administrator’s delegated authority (leader of the Measurement Technology Group) has approved these methods for the specified applications. These methods include quality control and quality assurance procedures that must be met.

- Federal Register Notice for Broadly Applicable Alternative Test Method Approvals – The first of these notices, published on January 30, 2007 (72 FR 4257), announced broadly applicable alternative test method approval decisions EPA made prior to 2007 to support New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP). This notice describes the alternative test method approval process and underlying regulatory requirements as well as announces the publication of the broad approvals on the EMC website and in the Federal Register. These broadly applicable alternative test method approvals provide options and flexibility for the regulated community to reduce the burden on source owners/operators in making site-specific alternative test method requests in addition to the permitting authorities and the EPA Administrator in processing those requests. Announcements of the broadly applicable approval decisions are published in the Federal Register on an annual basis; the most recent was published on March 4, 2019 (84 FR 7693). Broad approvals made in 2018 are as follows:
  - ALT-124: Process mass spectrometry as an alternative to continuous gas chromatography to measure net heating value in flare vent gas for refineries subject to 40 CFR part 63, subpart CC.
  - Alt-125: Alternative to use ASTM E3053-17 in certification of wood heaters.
EPA Office of Air Quality Planning and Standards Updates
Stationary Source Sampling and Analysis for Air Pollutants Conference
Point Clear, Alabama – April 15, 2019

- Alt-126: Alternative to use acetone probe rinse and filter sample recovery and preparation procedures in Method 5 in place of procedures in ASTM E2515-11 for certification of wood heaters, hydronic heaters, and forced-air furnaces.

- Alt-127: Alternative to use modifications to ASTM E3053-17 in certification of wood heaters.


- ALT-129: Alternative to use sorbent trap method (OTM-40) for HCl emissions for coal-fired electric utility steam generating units.

- ALT-130: Approval to use SW-846 Method 8260C or SW-846 Method 8260D for sources subject to 40 CFR part 63, subpart HHHHHHHH (Polyvinyl Chloride and Copolymers Production NESHAP).

Contacts: Lula Melton, MTG, melton.lula@epa.gov and Robin Segall, MTG, segall.robin@epa.gov.

PM 2.5 Method Development for Wet Stacks – In the past several years, EPA has participated in three projects attempting to develop one or more test methods for fine particulate that can be performed under wet stack conditions. One project has focused on the development of an instrumental method, another project would use a manual sampling train based on Method 201A, and one would utilize a camera to photograph droplets determine their size. The development of these methods is important for the state implementation plan (SIP) PM fine implementation program and for emission factor development.

- The instrumental method utilizes an in-stack droplet separator followed by a dilution chamber with an ambient air Federal Reference Method (FRM) at the end to measure PM 2.5. A prototype CEMS has been successfully evaluated under dry stack conditions and has been tested under wet stack conditions. We have performed modeling to optimize the design of the inertial droplet separator (IDS) and performed monodisperse testing on the resulting IDS at the University of Minnesota. Results showed promise but the project is on hold due to a lack of funding.

- The manual method was funded by API and NCASI and the results were at one time posted on the MTG website as OTM-36. As discussed in the caveats posted with the method, we have concerns about the validity of this method as written. In 2017, the University of Minnesota performed monodisperse testing on the pre-cutter nozzle and demonstrated that the current version of OTM-36 has a significant negative bias. As a result, we have removed it from our website. Work is being done to correct this negative bias.

- With the help of a contractor, EPA is assessing the ability of current camera technology to measure water droplet size distribution. We have successfully captured photographs of water droplets generated in the lab. We have also taken the camera to a facility with a wet stack to determine its limitations in such an inhospitable environment. We hope to perform additional testing in the coming months and are also attempting to understand the potential precision of the method, to identify data quality indicators to be used in the future refinement of this methodology, and develop an SOP for using the camera as a measurement device.
Method 301 Revisions – Method 301 describes the procedures needed to conduct field validation of pollutant measurement data and methods for various waste media. Revisions were finalized on March 20, 2018 (83 FR 12118). Method 301 was originally published as a field validation protocol for facilities subject to the Early Reductions Rule. In 1994, it was clarified that Method 301 has broader applicability when language was added to 40 CFR part 63.7 (59 FR 12430) to require Method 301 for validation of new methods and method modifications when justifying alternative test method requests. The latest revisions to Method 301 distinguish between validation requirements for single-source versus multiple-source application of a candidate method, clarify all the validation approaches and associated statistical calculations, and now reference 40 CFR part 136, Appendix B for determining the limit of detection of a method. MTG has also developed a web tool for conducting the Method 301 statistical analyses which is posted on the EMC website at: https://www.epa.gov/emc/method-301-field-validation-pollutant-measurement-methods-various-waste-media.

Contact: Robin Segall, MTG, segall.robin@epa.gov

Method 23 Revisions – We are currently working on extensive revisions to Method 23 for measurement of dioxins and furans. These revisions are designed to make the analytical portion of Method 23 as performance-based as possible. This will, in turn, provide additional flexibility in performing the method as well as allow for advances in technology without the need for changes to the method. Method 23 will include measurement of PCB and PAH compounds. MTG conducted 13 informal stakeholder calls to discuss possible revisions and give stakeholders an opportunity to provide their input and expertise. Revisions to the Method 23 proposal are complete. Proposal paperwork is in preparation for release in late Spring or Summer of 2019.

Contact: Ray Merrill, MTG, Merrill.raymond@epa.gov

Method 326 – As part of the Surface Coating of Wood Building Products (40 CFR part 63, subpart QQQQ) Residual Risk and Technology Review, we have finalized isocyanate compound sample collection and analysis requirements as Method 326 of 40 CFR part 63, Appendix A. Method 326 is based on “A Method for Measuring Isocyanates in Stationary Source Emissions,” which was proposed on December 8, 1997 (62 FR 64532), as Method 207, but was never promulgated. Method 326 does not significantly modify the sampling and analytical techniques of the previously proposed method but includes additional quality control procedures and associated performance criteria to ensure the overall quality of the measurement. Method 326 is based on the Method 5 sampling train employing a derivatizing reagent [1-(2-pyridyl) piperazine in toluene] in the impingers to immediately stabilize the isocyanate compounds upon collection. Collected samples are analyzed using high performance liquid chromatography (HPLC) with an appropriate detector under laboratory conditions sufficient to separate and quantify the isocyanate compounds. This rule (and method) were finalized in December 2018 and published in the Federal Register on March 4, 2019 (84 FR 7862).

Contacts: Ned Shappley, MTG, shappley.ned@epa.gov, Ray Merrill, MTG, merrill.raymond@epa.gov and Jason DeWees, MTG, dewees.jason@epa.gov.

Revisions to Methods 18, 25A and 320 – In late 2016, we identified a need for updates to three of our methods that measure volatile organic compounds (VOC): Methods 18, 25A, and 320. To accomplish this we have engaged interested stakeholders and formed working groups. Due to resource limitations, this project has been placed on hold. EPA expects work to resume in the second half of 2019 with additional working group meetings being held toward the end of 2019.

Contacts: Dave Nash, MTG, nash.dave@epa.gov and Ned Shappley, MTG, shappley.ned@epa.gov.

Condensable Particulate Method Comparison Project – In an effort to further understand condensable particulate matter (CPM) formation, EPA will be conducting method comparison and kinetics research. Comparison of an impinger-based method (Method 202) and a dilution-based method (OTM-037) will inform the potential for bias due to the principle behind each method. Additionally, in an attempt to quantify any possible bias, an aerosol mass spectrometer (AMS) will be used at various points along each method sampling setup to speciate CPM and examine if the measurement approach itself affects the amount of CPM sampled. The AMS, used in conjunction with a flow tube in which variables such as residence time, humidity, dilution ratio, and reactant concentration can be varied, will also be utilized to examine the kinetics of CPM formation. This might inform whether a particular sampling approach is more beneficial depending upon near-stack conditions. Initial shakedown testing has begun. To date, flow tube work has involved verifying conditions requisite for steady-state operations under a variety of reactant concentrations and interaction times. Particle size distributions (determined via SMPS) and speciation (via AMS) have been measured in the laboratory; the next step is moving the setup to EPA’s multi-pollutant control research facility (MPCRF) for the method comparison component of this work. Shakedown tests have been run with the OTM-037 setup as well, on the MPCRF, and the goal for additional testing to start is late Summer 2019.

Contacts: David Nash, MTG, nash.dave@epa.gov, Ned Shappley, MTG, shappley.ned@epa.gov, Jason DeWees, MTG, dewees.jason@epa.gov, Ray Merrill, MTG, merrill.raymond@epa.gov and Jeff Ryan,
Quantitative Optical Gas Imaging Feasibility – The efficacy of quantitative optical gas imaging (QOGI) as a viable approach to leak detection is currently being explored. Initial testing has taken place at the EPA test range using different gases against backgrounds that yield varying temperature differentials. Ongoing collaboration with the Colorado State University Methane Emissions Technology Evaluation Center (METEC) is focused on understanding the general efficacy of OGI in various OGI operators’ hands, as well as collecting data to support development of an envelope sufficient to support in-plant LDAR activities.

Contacts: Ned Shappley, MTG, shappley.ned@epa.gov and Jason DeWees, MTG, dewees.jason@epa.gov or Gerri Garwood, MPG, garwood.gerri@epa.gov

RICE Engine Emissions Measurement Workgroup – In an effort to determine if it is possible to establish a list of individual compounds that would represent total hydrocarbon emissions from RICE engines, a workgroup has been established. To date, there have been several stakeholder calls discussing speciating measurements, specifically Fourier Transform Infrared Spectroscopy (FTIR) and if it is possible to use these approaches to determine total hydrocarbons from these engines. At this point, EPA needs any data testers can provide to make a scientifically based/informed decision. Ideally, the data would represent engines of different sizes and ages, operating under ideal and non-ideal conditions. Until sufficient data is received, stakeholder calls will remain on hold.

Contact: David Nash, MTG, nash.dave@epa.gov

ASTM / NTTAA Activities – EMC staff continue to participate as committee members on ASTM subcommittees, primarily to encourage development of new stack test methods, especially where we anticipate a need that is not met by a current EPA method. In addition, under the National Technology Transfer Advancement Act (NTTAA), EPA considers all available voluntary consensus methods during the process of rulemaking and offers appropriate methods as regulatory alternatives. We are currently participating in or following ASTM standard development efforts for: (1) methods for low mass fireplaces, masonry heaters, hydronic heaters, wood heaters (cord wood), and pellet stoves (Committee E06); (2) the method for controlled condensate measurement of sulfuric acid under development (Committee D22); (3) a general standard for method detection limits (Committee D22); and (4) methods for VOC and low VOC in coatings (Committee D01). We continue to follow workgroup activities in subcommittees D22.03 (Ambient and Stationary Source Standards) and D22.05 (Indoor Air Standards) to develop and revise standards applicable to EPA’s mission. We are also updating our database of approved Voluntary Consensus Standard methods with the overall goal of providing approval to the latest ASTM and other Consensus Body Standards for use in compliance with EPA regulations, where the consensus standard method is deemed technically appropriate.

Contacts: Ray Merrill, MTG merrill.raymond@epa.gov, Mike Toney, MTG, toney.mike@epa.gov and Ned Shappley, MTG shappley.ned@epa.gov
OTM’s – Other Test Methods

OTM-36: Method for the Determination of Filterable PM$_{2.5}$ Emissions from Moisture Saturated and/or Droplet-laden Stationary Source Gas Streams (Constant Sampling Rate Procedure) - This test method was designed to measure filterable particulate matter emissions equal to or less than a nominal aerodynamic diameter of 2.5 micrometers (PM$_{2.5}$) in moisture saturated (wet) and/or droplet-laden gas streams from stationary sources. The method addresses the equipment, preparation, and analysis necessary to measure filterable PM$_{2.5}$ emissions in droplet-laden and/or moisture-saturated gas streams. Since originally being posted on the EMC website, additional testing has been performed that demonstrates that the current version of OTM – 36 has a significant negative bias. As a result, we have removed it from our website. Work is being done to try and correct this negative bias.

Contact Kim Garnett at 919-541-1158 or garnett.kim@epa.gov

OTM-37: Measurement of Direct PM$_{2.5}$ and PM$_{10}$ Emissions at Low Concentrations by Dilution Sampling (Constant Sampling Rate Procedure) - This method for measurement of primary PM$_{2.5/10}$ builds upon CTM-039’s capabilities by applying more sensitive ambient air gravimetric sampling and analysis methods to the diluted and cooled stack gas samples, achieving greater sensitivity (improved precision) than can be achieved with CTM-039 alone. Specifically, the condensable portion of Direct PM is collected on polytetrafluoroethylene (PTFE) membrane filters with a diameter of 47 mm (1.9 inches), and then analyzed according to procedures used in EPA’s Ambient PM$_{2.5}$ Monitoring Program.

Contacts: David Nash, MTG, nash.dave@epa.gov, Ned Shappley, MTG, shappley.ned@epa.gov, Jason DeWees, MTG, dewees.jason@epa.gov

OTM-40: Determination of Hydrogen Chloride Emissions from Coal-Fired Combustion Sources Using Sorbent Traps - This method takes the sampling technique and the performance-based approach of the sorbent trap method for mercury emissions (EPA Method 30B, 40 CFR 60, Appendix A) and applies them to the measurement of hydrogen chloride (HCl) emissions. OTM-40 is designed to measure hydrogen chloride (HCl) in emissions from coal-fired electric utility steam generating units with “dry” flue gas (i.e., no entrained water droplets). The method uses sorbent traps and an extractive sampling system to collect a representative sample. The total chloride collected in the sorbent traps is then measured using ion chromatography (IC) for chloride that is reported as HCl.

Note: The use of OTM-40 for performance tests used to show compliance with Federal emission standards or monitoring requirements other than those approved under ALT-129 must be approved by the EPA Administrator.

This method is intended for measuring HCl emissions for the purposes of conducting compliance tests, performing relative accuracy test audits (RATAs) of HCl continuous emissions monitoring systems, and similar emission measurements. The method is designed for relatively low particulate matter applications and should only be applied at sampling locations after all pollution control devices. The method shall not
be used at stationary sources where moisture droplets may be present (e.g., after a wet scrubber). In addition, sampling at sources that contain high ammonia (NH₃) environments must be avoided.

Contact: Robin Segall, MTG, segall.robin@epa.gov

EPA Handbook: Optical and Remote Sensing for Measurement and Monitoring of Emissions Flux of Gases and Particulate Matter – 2018 Revision - The purpose of this handbook is to describe the primary remote measurement technologies and current approaches to using these technologies. This handbook also describes how potential users can assess the applicability of remote measurements and the resulting data to their emissions measurement needs. First published in 2011, this recent revision includes these new features and chapters:

- Decision tables that illustrate techniques and technology. These are based on ease of use, cost and timeframe, and quality assurance concerns;
- Chapter 2.5 has been rewritten to include Optical Gas Imaging. This section was limited to a description of Thermal Infrared Camera technology;
- Chapter 2.7 discusses Optical Remote Sensing (ORS) instrumentation that can measure PM, with size ranges to the UFPs up to PM₁₀;
- Chapter 3.6 and 3.7 describes Other Test Methods (OTM) 33 and 33a, which describe Geospatial Measurements of Air Pollution, Remote Emission Quantifications;
- Chapter 3.8, Hyperspectral Monitoring;
- Chapter 3.9, Fenceline Passive Sampling – Methods 325 A/B;
- Chapter 3.10, Method to Quantify Particulate Matter Emissions from Windblown Dust;
- Chapter 3.11, Determination of Emissions from Open Sources by Plume Profiling, and;
- Chapter 3.12 Method to Quantify Road Dust Particulate Matter Emissions from Vehicular Travel on Paved and Unpaved Roads.

Contact: David Nash, MTG, nash.dave@epa.gov

Measurement Policy Group Updates:

Electronic Reporting
• **Implementation of Electronic Reporting** – We have already incorporated electronic reporting into 65 subparts in 40 CFR parts 60 (18), 62 (1), and 63 (46). A complete list of these rules can be found at [https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri#list](https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri#list). Most of these subparts limit electronic reporting to stack test reports and performance evaluation reports. However, we have promulgated other electronic reporting requirements in specific rules. For example, the recently promulgated rules for Large Appliances, Fabric Printing, and Metal Furniture contain electronic reporting for Notifications of Compliance and periodic reports through a spreadsheet template.

In the past year, EPA finalized requirements to electronically submit stack test reports and other specified reports into rules for the following sectors:

- Wet Formed Fiberglass Mat (40 CFR part 63, subpart HHHH)
- Large Appliances (40 CFR part 63, subpart NNNN)
- Fabric Printing (40 CFR part 63, subpart OOOO)
- Wood Building Products (40 CFR part 63, subpart QQQQ)
- Metal Furniture (40 CFR part 63, subpart RRRR)
- Leather Finishing Operations (40 CFR part 63, subpart TTTT)

EPA has also updated the electronic reporting requirements for Portland Cement (40 CFR part 63, subpart LLL).

These recently promulgated final rules also incorporate a few differences from previous electronic reporting provisions. Wood Building Products contains revised language for stack test reporting requiring the inclusion of methods not currently available in the ERT as attachments within the ERT. Also included are provisions to request a delay in the submittal deadline to CEDRI due to either CEDRI outages or force majeure events; to be approved at the discretion of the Administrator.

Contact: Gerri Garwood, MPG, [garwood.gerri@epa.gov](mailto:garwood.gerri@epa.gov), 919-541-2406.

• **Electronic Reporting for Utilities** – In order to consolidate electronic reporting for utilities through one system, the Mercury and Air Toxics Standards (MATS) interim rule replaced the requirement to submit reports in the format generated through the use of the ERT via CEDRI and with CEDRI fillable forms. The interim rule temporarily requires these reports to be submitted as pdf uploads through the Emissions Collection and Monitoring Plan System (ECMPS), run by the EPA’s Clean Air Markets Division (CAMD). We continue to work through issues associated with making a unitary electronic reporting system and we expect a final rule soon. The MATS interim rule allowed pdf uploads for electronic reporting until June 30, 2018; that deadline has been extended to July 1, 2020.

Contact: Barrett Parker, MPG, [parker.barrett@epa.gov](mailto:parker.barrett@epa.gov), 919-541-5635.

**Data Systems**

• **The Compliance and Emissions Data Reporting Interface (CEDRI)** – CEDRI is located on EPA’s CDX. CDX is the EPA’s node on the Exchange Network, a web-based platform for data sharing between EPA and state, local, and tribal agencies. CDX is the application used by EPA programs and various stakeholders to manage environmental data transmitted
to EPA in order to meet EPA's reporting requirements. CEDRI is an application within the CDX that supports the electronic submittal of reports required by 40 CFR parts 60 (NSPS), 62 (Federal Plans), and 63 (NESHAP or MACT), i.e., performance test reports (ERT file upload), performance evaluation reports (ERT file upload), notification of compliance status reports (generally PDF upload), and periodic reports (CEDRI fillable form or spreadsheet template). CEDRI supports aggregation of multiple reports into a single package for submission. Reports submitted via CEDRI are Cross-Media Electronic Reporting Regulation (CROMERR) compliant, meaning that the electronic signature is equal to a wet ink signature. Additional information can be found on the CEDRI website at https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri. Questions can be sent to CEDRI@epa.gov.

In the past year, major enhancements to CEDRI include:
- Updated facility widget to allow users to provide sub-facility data during submission; and
- Replaced notification email feature for Reviewer roles.

State, local, tribal, and EPA regional office personnel can sign up to review reports submitted to CEDRI by sending an email to CEDRI@epa.gov. The email should include the reviewer’s name, phone number, organization information (name, address, phone number), and email address.

Contact: Ketan Patel, MPG, patel.ketan@epa.gov, (919) 541-9736.

**The Electronic Reporting Tool (ERT)** – In 2006, EPA made available a Microsoft Access© desktop application called the ERT (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert). This application creates an electronic alternative to paper reports for source emissions tests. To date, more than 5,900 reports have been submitted via CEDRI in the format generated through the use of the ERT.

We posted Version 5 of the ERT online for use on August 1, 2014. We continually review comments we receive on the ERT and update the ERT to address those comments. The most recent update remains the August 1, 2017 update. A complete list of updates to the ERT, as well as an update history, can be found on the ERT website.

Version 6 is in progress, incorporating the Wood Heater module, additional group pollutants (i.e., Total Dioxins and Furans, Semivolatile Metals (Pb and Cd), Low Volatile Metals (both As, Be, and Cr and As, Be, Cr, Sn, Co, Mn, and Ni groupings) and Total Condensible Particulate (Organic + Inorganic) added to the compound list, as well as other fixes, methods, and Performance Specifications.

To download the ERT, access the user’s manual, find answers to frequent questions, or learn about training opportunities, please visit the ERT website. If you have any questions or issues with the ERT, please contact Theresa Lowe by email or phone.

Contact: Theresa Lowe, MPG, lowe.theresa@epa.gov, (919) 541-4786.
• **WebFIRE** – We continue to implement our multi-part process to improve the air pollutant emissions factors program and to make the program self-sustaining. We posted *The Draft Final Guidance on the Recommended Procedures for Development of Emissions Factors and Use of the WebFIRE Emissions Factor Database* ([https://www.epa.gov/air-emissions-factors-and-quantification/procedures-development-emissions-factors-stationary-sources](https://www.epa.gov/air-emissions-factors-and-quantification/procedures-development-emissions-factors-stationary-sources)) in August 2013. We are completing the process of programming WebFIRE with these procedures and have incorporated existing AP-42 supporting documentation into our WebFIRE database so that electronically submitted test reports can be easily evaluated to determine if new or revised emissions factors should be proposed.

Since 2012, we’ve enhanced WebFIRE so that it stores and retrieves reports (*i.e.*, performance test reports, Notice of Compliance, air emission reports) received from CEDRI. Users can search for reports and emissions factors on the WebFIRE website: [https://cfpub.epa.gov/webfire/](https://cfpub.epa.gov/webfire/).

Contact: Michael Ciolek, MPG, ciolek.michael@epa.gov, (919) 541-4921.

• **Emissions Factors Update** – Revisions to AP-42 Section 7.1 – Organic Liquid Storage Tanks were proposed on July 25, 2018. Information on the proposal is available on the EPA’s website ([https://www3.epa.gov/ttn/chief/ap42/ch07/draft/AP42_Chapter_7_section_7-1_revisions_summary.pdf](https://www3.epa.gov/ttn/chief/ap42/ch07/draft/AP42_Chapter_7_section_7-1_revisions_summary.pdf)).

The proposed revisions include emissions estimating methodologies for the following types of events and situations:
- Landing a floating roof;
- Tank cleaning;
- Tanks containing unstable liquids, such as tanks that have air or other gases injected into the liquid (sparging), tanks storing liquids at or above their boiling point (boiling), or tanks storing liquids that contain gases with the potential to flash out of solution (flushing);
- Variable vapor space tanks;
- Pressure tanks designed as closed systems without emissions to the atmosphere;
- Time periods shorter than one year; and
- Internal floating roof tanks with closed vent systems.

Additionally, the proposed revisions include the following guidance:
- Case-specific liquid surface temperature determination;
- Adapting equations for heating cycles in fixed roof tanks;
- Applying Raoult’s Law to calculate the contribution of individual chemical species to the total emissions; and
- Worked examples (Section 7.1.5).

Contact: Gerri Garwood, MPG, garwood.gerri@epa.gov, (919) 541-2406, or Michael Ciolek, MPG, ciolek.michael@epa.gov, (919) 541-4921.

• **Source Classification Code (SCC) Revisions Project** – We are in the process of updating and improving the point source SCCs. EPA uses SCCs to classify different types of anthropogenic emission activities. Each SCC represents a unique process or function that emits an air pollutant.
SCCs are used for multiple applications, such as NEI/EIS reporting, risk and technology review modeling, EPA’s WebFIRE database and the ERT. The SCCs are also used by many regional, state, local, and tribal agency emissions data systems. The objective of this project is to remove outdated and duplicate SCCs, identify missing SCCs, and fix inconsistencies in the level of detail the SCCs provide. A comprehensive list of SCCs can be found online (https://www.epa.gov/scc).

Over the past year, we created 850 SCCs, retired 81 SCCs, and revised 580 SCCs affecting the following sectors:
- Waste Disposal;
- Petroleum Refineries;
- Wood Building Products; and
- duplicative “MACT” SCCs.

Contact: Ketan Patel, patel.ketan@epa.gov, (919) 541-9736, or Muntasir (Monty) Ali, ali.muntasir@epa.gov, (919) 541-0833.

Improving Emissions Monitoring through Rulemaking

- **Rule Reviews** – In March 2017, two court orders were issued for EPA to perform Residual Risk and Technology Reviews (RTRs) for 33 source categories. We received a court-ordered deadline to perform RTRs for an additional nine source categories in March 2018. The court-ordered deadlines for final signature dates for these rules range from December 31, 2018, to October 1, 2021. Seven of the 42 deadline RTRs have already been promulgated. During RTRs, MPG and MTG staff work with the rule writers to assess the monitoring and testing requirements of the rules to determine if changes are needed or warranted. Additionally, MPG staff work with the rule writers to streamline recordkeeping and reporting requirements and incorporate electronic reporting as appropriate. MPG is now encouraging rule writers to propose electronic reporting templates as part of proposed rule packages in an effort to provide a better method of notification of availability of draft forms and additional time and means for stakeholders to comment on the draft form.

In the latest batch of promulgated rules (listed above), in addition to the electronic reporting provisions, periodic performance testing was added to Wood Building Products, Fabric Printing, Large Appliances, Metal Furniture, and Leather Finishing Operations. EPA Method 326 for isocyanates was promulgated with the Wood Building Products rule.

Contact: Barrett Parker, MPG, parker.barrett@epa.gov, (919) 541-5635; Kevin McGinn, MPG, mcginn.kevin@epa.gov, (919) 541-3796; Gerri Garwood, MPG, garwood.gerri@epa.gov, (919) 541-2406; or Theresa Lowe, MPG, lowe.theresa@epa.gov, (919) 541-4786.