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Measurement Technology  
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# MTG Highlights and Recent Broadly Applicable Test Method Approvals

# Test Method Update Rulemaking

- ▶ Revisions to over 50 Test Methods & PS
  - Alternative equipment and procedures
  - Corrections/clarifications
  - Removal of Hg thermometer/barometer requirements
  - Published 1/9/12 (77 FR 1130)
  - Final publication is expected in May 2013
  - Contact: Foston Curtis



# Test Methods

## ▶ Method 16C for TRS

- Method 16A sampling (heated probe & citrate buffer) with Method 6C analysis (tube furnace oxidize to SO<sub>2</sub>)
- Proposed 9/11; promulgated on 7/30/12
- Contact: Foston Curtis



# Test Methods

- ▶ Methods 201 and 202 Revisions
  - Latest version promulgated in 2010
  - Clarifications posted on EMC FAQ
  - Working on proposal of needed changes
  - Guidance
  - Contact: Jason DeWees, Ray Merrill



# Test Methods

- ▶ Methods 325A&B  
Passive Tube Fenceline Monitoring
  - Fugitive/area source emission concentrations
  - Targeting Proposal with Refinery MACT in 2013
  - Contacts: Ray Merrill, Jason DeWees



# CEMS Performance Specifications

## ▶ HCI CEMS PS

- To support Portland Cement MACT and MATS Rule
- Technology neutral
- Propose in June 2013
- Contact: Ray Merrill, Candace Sorrell

## ▶ Bag Leak Detector PS

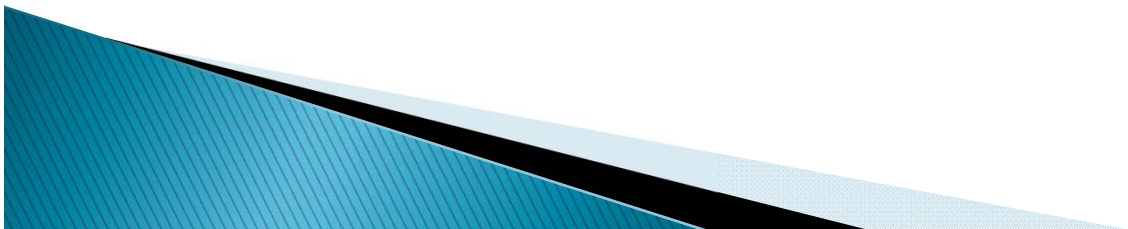
- Codify specifications; expand on existing guidance
- Technology neutral
- Convene stakeholder group
- Contact: Kim Garnett, Dan Bivins





# CEMS Performance Specifications

- ▶ Performance Specification 11 Revisions and Guidance
  - Corrections and clarifications to equations and calculations
  - Guidance on various topics
  - Updates to the PM CEMS Knowledge Document
  - Gather additional correlation data
  - Contacts: Dan Bivins, Kim Garnett



# QA Procedures for CEMS

## ► Procedure 3 – QA for COMS

- Direct Final with Parallel Proposal published 2/14/12
- QA/QC requirements being revised to address comments.
- Final published in August 2013
- Contact: Lula Melton





# Alternative and Other Test Methods

## ▶ Digital Camera Method for Opacity

- Opacity using digital imagery and associated software
- Digital Camera Opacity Technique (DCOT)
- Originally ASTM D7520-09 approved with additional caveats as alternative to Method 9, April 2011
- Revised in 2012 in response to comments received
- Contact: Jason DeWees



# Broadly Applicable Alternative Test Methods

- ▶ Latest FR Notice February 15, 2012
  - Contact: Lula Melton
- ▶ Some Approvals in 2012
  - Alternative Procedures for Determination of Moisture Content for mercury LEE in MATS
  - Alternative Calibration Procedures for Method 7E for Supbart JJJ
  - Approval of TECO-55I for RICE
  - Approval of TECO-55C for Landfills



# Method Development

- ▶ Large Area Source Remote Measurement
  - Large area sources (e.g., landfills) exceed optical path lengths of current technologies; two new approaches
    - Addendum to OTM-010 – algorithm estimates area of landfill contributing to measured value
    - Release of known amount of tracer coupled w/ downwind measurement of tracer and target pollutant; emissions calculated from ratio
    - Protocols in 2013
  - Contacts: Jason DeWees, Eben Thoma



# Method Development

## ▶ Oil & Gas Emission Measurement

- Since 2008, working on approaches to quantify VOC and air toxics emissions from upstream oil & gas operations
- Draft protocol by the end of 2013
- Contacts: Jason DeWees, Eben Thoma (ORD), Robin Segall



# Method Development

- ▶ PM 2.5 Method Development for Wet Stacks
  - CEM method – Baldwin Environmental
    - Initial testing results were encouraging
    - More modeling of the IDS
    - Possible field test
  - Manual method – Air Control Techniques
    - Completed Method 301 testing
    - Final report in February 2013
    - OTM Website
  - Contacts: Dan Bivins, Jason DeWees, Kim Garnett



# Other Projects

## ▶ Optical Gas Imaging (OGI)

- Technical Foundation for Potential Future OGI Protocol
- Assess the technical underpinnings needed
- Quantitatively determine the detection capabilities
- Contact: Jason DeWees





# Other Projects

- ▶ Handbook for Remote Measurement & Monitoring
  - Compendium of remote measurement/monitoring techniques for stationary sources
  - Addresses technologies and measurement approaches utilizing these technologies
  - Including applicability, strengths/limitations, validation info, and example QA/QC
  - Posted on EMC website as GD-52
  - Contacts: Ray Merrill, Jason DeWees, Robin Segall



# Other Projects

- ▶ GHG Measurement & Monitoring Handbook
  - Methodologies for measuring GHG from point & non-point sources
  - CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, FC, NF<sub>3</sub>
  - Presently undergoing internal review
  - Contact: Kristen Benedict



# Other Projects

## ▶ Data Mining

- The accumulation and evaluation of data submitted to the agency.
- Understand the limitations of manual methods
- Identify potential updates
- Contact: Kristen Benedict



► Questions?

