



Office of Air Quality Planning and Standards

NAAQS and Other CAA Implementation Updates

**Anna Marie Wood
Director, Air Quality Policy Division
CAAAC Spring Meeting
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Overview of Presentation

- NAAQS Schedules and Implementation Updates
 - Ozone
 - SO₂
 - PM_{2.5}
 - Other
- Interstate Pollution Transport
- Title V Permitting
- GHG Permitting
- PSD/NSR

NAAQS Reviews: Status Update

(as of March 2014)

	Ozone	Lead	Primary NO ₂	Primary SO ₂	Secondary NO ₂ and SO ₂	PM	CO
Last Review Completed (final rule signed)	Mar 2008	Oct 2008	Jan 2010	Jun 2010	Mar 2012	Dec 2012	Aug 2011
Recent or Upcoming Major Milestone(s)¹	<p><u>Feb 2014</u> 2nd Draft REAs 2nd Draft PA</p> <p><u>Mar 25-27, 2014</u> CASAC review meeting</p> <p>Proposed rule Jan 2015*</p>	<p><u>Mar/Apr 2014</u> Final PA</p> <p><u>2014</u> Proposed rule</p>	<p><u>Nov 2013</u> 1st Draft ISA</p> <p><u>Feb 2014</u> Draft IRP</p> <p><u>Mar 12-13, 2014</u> CASAC review meeting</p>	<p><u>Mar 19, 2014</u> Draft IRP released</p> <p><u>Apr 22, 2014</u> CASAC review meeting</p>	<p><u>Mar 4-6, 2014</u> Kickoff workshop for next review</p> <p><u>Summer 2014</u> Draft IRP</p>	<p>Kickoff workshop for next review targeted for early 2015</p>	<p>Kickoff workshop for next review targeted for 2015</p>

Additional information regarding current and previous NAAQS reviews is available at: <http://www.epa.gov/ttn/naaqs/>

¹ IRP – Integrated Review Plan; ISA – Integrated Science Assessment; REA – Risk and Exposure Assessment; PA – Policy Assessment

* Final dates are subject to a deadline suit. A court hearing is currently scheduled for April 1, 2014.

Anticipated NAAQS Implementation Milestones

(updated March 2014)

Pollutant	Final NAAQS Date	Infrastructure SIP Due	Designations Effective	Attainment Plans Due	Attainment Date
PM _{2.5} (2006)	Oct 2006	Oct 2009	Dec 2009	Dec 2014*	Dec 2015 (Mod) Dec 2019 (Ser)
Pb (2008)	Oct 2008	Oct 2011	Dec 2010/2011	June 2012/2013	Dec 2015/2016
NO ₂ (2010) (primary)	Jan 2010	Jan 2013	Feb 2012	N/A	N/A
SO ₂ (2010) (primary)	June 2010	June 2013	Oct 2013 ** (+2 rounds)	April 2015	Oct 2018
Ozone (2008)	Mar 2008	Mar 2011	July 2012	Mid 2015/2016	2015/2032
PM _{2.5} (2012)	Dec 2012	Dec 2015	Early 2015	Mid 2016	Dec 2021 (Mod) Dec 2025 (Ser)

* Under proposed deadline rule.

**There is ongoing litigation over the SO₂ designation dates.

- Revised primary 8-hr Ozone standard in 2008 (.075 ppm/8-hr)
- EPA designations for the 2008 Ozone NAAQS effective on July 20, 2012
 - Litigation on certain final area designations
 - Petition seeking redesignation of areas designated as attainment to nonattainment
- 2008 Ozone NAAQS SIP Requirements Rule
 - Proposed May 29, 2013 (78 FR 34178)
 - Anticipate final rule in Fall 2014
 - Attainment plans and demonstrations due July 2015 (Moderate) or July 2016 (Serious and above)

- Litigation over Current Ozone NAAQS Review
- EPA's Tentative Dates
 - Proposal date – January 15, 2015
 - Final date – November 15, 2015
- Dates Requested by Litigants
 - Proposal date – December 1, 2014
 - Final date – October 1, 2015
- Dates subject to resolution of deadline suit

PM_{2.5} NAAQS Review

- EPA revised the annual primary PM_{2.5} NAAQS to 12 µg/m³ from the previous level of 15 µg/m³ on December 14, 2012
 - NAAQS effective date: March 18, 2013
 - Legal challenge filed by industry related to the annual primary PM_{2.5} standard, near-road monitoring, and implementation-related issues

- *NRDC v EPA* (D.C. Cir, Jan. 4, 2013)
 - Court held EPA improperly proceeded under Subpart 1, and that provisions of Subpart 4 applied to rulemakings
 - Decision impacted 2007 PM_{2.5} NA Rule and 2008 PM_{2.5} NSR Implementation Rule (related to 1997 PM_{2.5} NAAQS) and implementation of the 2006 PM_{2.5} NAAQS

PM_{2.5} NAAQS Implementation

- On November 15, 2013, the EPA proposed a rule to:
 - Classify areas designated nonattainment for the 1997 and/or 2006 PM_{2.5} standards as “Moderate”
 - Set a new deadline of December 31, 2014, for states to submit attainment–related and nonattainment NSR SIP submissions required under Subpart 4 as needed

- Rule was proposed to provide some clarity to states following January 2013 D.C. Circuit decision holding that the EPA should implement PM_{2.5} NAAQS according to Subpart 4 of part D of Title I of the Clean Air Act
 - Subpart 4 deadlines had already passed when the decision was issued, so we proposed expeditious future date of December 31, 2014

- EPA anticipates finalizing the rule in April 2014

- Designations Guidance

- April 2013 guidance on Initial Area Designations for the 2012 Revised Primary Annual Fine Particle National Ambient Air Quality Standard

<http://www.epa.gov/pmdesignations/2012standards/docs/april2013guidance.pdf>

- Available data sets to facilitate area analyses, and interactive designations tools are available on the PM_{2.5} designations website at

<http://www.epa.gov/pmdesignations/2012standards/techinfo.htm> and http://geoplatform2.epa.gov/PM_MAP/index.html (PM Designations Mapping Tool)

■ Status of Designations

- State (and Tribal) recommendations were due to EPA by December 13, 2013
- EPA received recommendations from 50 states, 2 territories, D.C. and 6 tribes
 - 5 states recommended a total of 15 nonattainment areas (including 39 whole or partial counties)

■ Next Steps

- EPA intends to notify states/tribes of intended modifications to recommendations in “120-day” letters by August 2014
- Final designations expected in December 2014

PM_{2.5} NAAQS Implementation

- PM_{2.5} NAAQS SIP Requirements NPRM
 - Propose rule early Fall 2014
 - Finalize as close as possible to effective date of designations for the 2012 PM_{2.5} NAAQS (in 2015)
- Proposal will clarify nonattainment implementation requirements according to subpart 4 of part D of Title I of the CAA, consistent with D.C. Circuit Court decision
- Proposal will address how subpart 4 court decision affects nonattainment NSR permitting requirements (e.g., with respect to major source threshold, precursors, etc.)

PM_{2.5} NAAQS Implementation

- Draft Guidance on PM_{2.5} PSD Modeling – public comment period ended on May 31, 2013
 - Addressed approaches to assessment of source impacts on ambient PM_{2.5}, particularly for secondary PM_{2.5}
 - Addressed recent court decision affecting the PM_{2.5} Significant Impact Levels (SILs) and Significant Monitoring Concentration (SMC) and contained interim guidance on using the SILs as part of the air quality impact analysis
 - Finalizing revisions to guidance document based on comments received and experience gained through more recent PM_{2.5} permit modeling assessments submitted for review to EPA
 - Draft guidance can be found at http://www.epa.gov/ttn/scram/guidance/guide/Draft_Guidance_for_PM25_Permit_Modeling.pdf
- Release of a revised guidance document anticipated in April 2014

- PM_{2.5} Emissions Inventory Guidance
 - EPA is updating the 2005 Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter NAAQS and Regional Haze Regulations
 - Draft version release is dependent on timing of the final PM_{2.5} Implementation Rule

- PM_{2.5} Attainment Demonstration Modeling Guidance for SIPs
 - Draft guidance – Late 2014 around timing for designations
 - Final version release dependent on timing of the final PM_{2.5} Implementation rule

2010 SO₂ NAAQS Implementation

- Revised primary SO₂ standard: June 2010 (75 ppb/1-hr)
- SO₂ Area Designations and Implementation Strategy released February 2013
- Designations and Implementation Guidance and Assistance
 - Issued PSD permit modeling guidance documents applicable to the 1-hr SO₂ NAAQS on August 23, 2010 and March 1, 2011
 - Technical Assistance Documents for modeling and monitoring issued December 2013
 - For more information including strategy and guidances visit
 - <http://www.epa.gov/airquality/sulfurdioxide/implement.html>

- Initial nonattainment area designations, based on violating monitors, were effective October 4, 2013
 - 29 areas in 16 states designated
 - Attainment plans due April 2015
 - Judicial challenges filed for three areas designated NA and regarding EPA's approach to designations in general

- Strategy includes two additional future rounds of initial designations based on modeling (2017) and monitoring (2020) data to be submitted by states

- Deadline suits filed by Sierra Club and several states requesting court to order EPA to issue final designations for all remaining areas with timeframes ranging from a couple months to 2 years from date of order

- SO₂ Data Requirements Rule
 - Objective is to provide information to EPA in an orderly fashion to inform initial area designations for areas not designated in 2013
 - Proposal targeted for spring 2014 and final in late 2014

- 1-hr SO₂ NAAQS Nonattainment SIP Elements Guidance
 - Objective is to provide assistance to areas developing their nonattainment area plans
 - Draft provided for air agency review in October 31, 2013
 - Expected to be issued in April 2014

- Status of Next SO₂ NAAQS Review (primary and secondary)
 - At the beginning stages of the review

INTERSTATE POLLUTION TRANSPORT UPDATE

Interstate Pollution Transport Update

- U.S. Supreme Court granted EPA's petition for review of the D.C. Circuit's decision in *EME Homer City* which vacated the Cross State Air Pollution Rule (CSAPR)
 - Oral argument was held on December 10, 2013, and a decision is expected soon
 - Decision will impact CSAPR and other actions
- CSAPR focused on attainment and maintenance of the 1997 Ozone NAAQS, 1997 PM_{2.5} NAAQS and 2006 PM_{2.5} NAAQS
- EPA is moving forward to address transport as we await the Supreme Court's decision.
 - From an air quality and health perspective, the most pressing transport challenge appears to be ozone in the eastern half of the U.S. Specifically, transported emissions may pose challenges for areas with respect to the 2008 ozone standard.
 - EPA is developing a rulemaking

- Assessing need for further action in western states
 - EPA will continue to work with western states through our Region 8, 9, and 10 offices to address particulate matter (PM) and ozone attainment challenges in the west and assess the need for a future transport rule addressing these issues

- We have and will continue to conduct outreach to states
 - Examples of this include workshop in April 2013, early release of emissions inventories, updates to state organizations, and conference calls on technical issues

TITLE V, GHG AND NSR PERMITTING UPDATES

- EPA proposed changes to federal rules to amend the annual compliance certification requirements for state and federal operating permit programs to address IG recommendation
 - The rule amending the compliance certification requirements is a correction rule to restore a sentence that was removed from the rules in error back in 2003
 - The proposal published on March 29, 2013
 - We received 7 comment letters and are working on the final package
 - EPA is working on the final rule
- EPA committed to develop a guidance document that addresses the recommendations on the contents of statement of basis and compliance certifications
 - EPA's plan is to issue the guidance by summer 2014

GHG Permitting Tailoring Rule Implementation Schedule

- **Step 1:** Sources already subject to PSD “anyway” and GHG emissions = or > than (tpy CO₂e):

New source: NA

PSD Modification: 75,000

- **Step 2:** Step 1 plus sources with GHG emissions = or > than (tpy CO₂e):

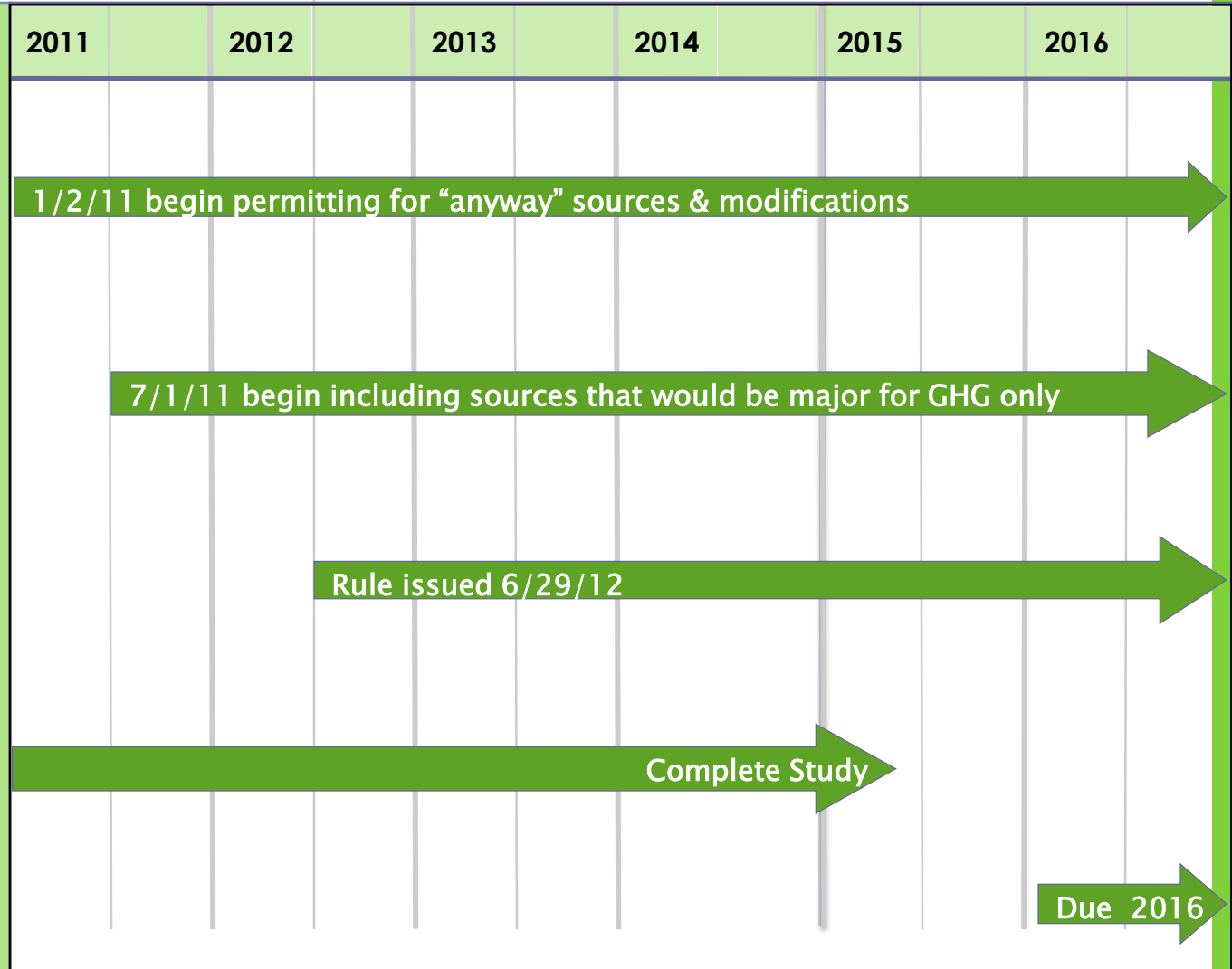
New source: 100,000

PSD Modification: 75,000

- **Step 3:** Maintains the thresholds from Step 1 and Step 2. Establishes additional PAL provisions to streamline the permitting process

- **5-year study:** To examine GHG permitting for smaller sources

- **Step 4:** Additional rulemaking based on 5-year study



GHG Tailoring Rule Implementation

- Additional work/commitments include:
 - 5-year study due for completion in April 2015
 - Step 4 Rule due in April 2016
 - Actions we are considering to assist in the implementation of the Tailoring Rule
 - Streamlining Techniques Development
 - Title V Fees for GHGs
 - Approaches for treatment of Biogenic CO₂ emissions for permitting purposes

- Consider and develop (as appropriate) GHG PSD permit streamlining approaches

GHG Permitting Five-Year Study: Data Collection

- Data on GHG permitting activity is needed for both PSD and title V programs as part of the study
- EPA is conducting a voluntary survey of 9 state/local permitting authorities to obtain additional permitting data
- Data elements identified for the study include:
 - Total number of permits being issued with/without GHG permit requirements, including major, synthetic minor and title V permits
 - Source categories for which permits are being issued
 - Information to estimate the number of currently minor GHG sources that would be added to the program if the thresholds were changed/lowered
 - Development and use of streamlining techniques
 - Permitting authority burden
- EPA is also assessing information from publicly available online permitting databases such as the RACT/BACT/LAER Clearinghouse
- We are also considering our own data for areas where we issue GHG permits

Status of GHG PSD and Title V Permitting Programs

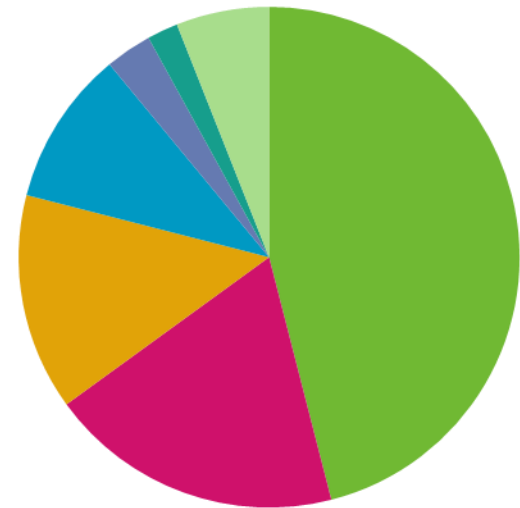
- PSD Programs
 - 11 permitting authorities initially received FIPs
 - 9 states, 2 programs in Arizona
 - Only 2 states (TX, FL) currently remain with GHG FIP
 - EPA continues to work with permitting authorities to ensure PSD permitting program changes are processed in an efficient manner

- Title V Programs
 - EPA is working with Regional Offices, as necessary, to ensure states have adequate authority to implement title V GHG programs

Tally of GHG PSD Permits (as of 3/21/14)

- 166 PSD permits with GHG limits have been issued
 - 122 issued by states
 - 44 issued by EPA
- Approximately 50 GHG-related PSD permit applications are currently being processed by EPA Regions
- EPA Comment Letters on GHG Permitting Actions
 - <http://www.epa.gov/nsr/ghgcomment.html>
- EPA-issued permits available on Regions' websites

Permits by Industry



- EGU
- Oil & Gas
- Chemicals & Fertilizer
- Minerals/Metals
- Cement
- Wood Products
- Other

GHG BACT Determinations

- GHG BACT is resulting in:
 - Energy efficiency being considered early in the design of projects, pushing existing technology to become more effective in reducing GHGs
 - Add-on GHG controls being considered, forcing continued development of these technologies

- EPA views Carbon Capture and Storage (CCS) as an available technology for most facilities emitting CO₂ in large amounts
 - CCS often rejected in BACT Step 4, which considers costs and other impacts.
 - In some cases, CCS has been rejected in Step 2, which considers the technical feasibility of CCS at the source in question
 - EPA continues to stress that the BACT evaluation of CCS is a very case-specific analysis, and BACT decisions should be supported by the record and well documented

Supreme Court GHG Litigation

- On February 24, 2014, the Court heard oral argument in the matter of *UARG v. EPA* where the Court had granted certiorari on the following question:
 - Whether EPA permissibly determined that its regulation of greenhouse gas emissions from new motor vehicles triggered permitting requirements under the Clean Air Act for stationary sources that emit greenhouse gases
 - Decision is expected in Summer 2014
- The Court's decision, whether in favor of EPA or not, is likely to result in EPA assessing the implications of the decision on EPA's related GHG permitting activities

Treatment of Biogenic CO₂ Emissions for PSD and Title V Permitting Purposes

- In July 2011, EPA deferred application of Clean Air Act permitting requirements to CO₂ emissions from bio-energy and other biogenic sources until July 2014 to learn more about the scientific and technical issues related to accounting for biogenic CO₂
- In September 2011, EPA issued a draft accounting framework for biogenic CO₂ emissions from stationary sources and in September 2012 the Science Advisory Board (SAB) completed its scientific analysis of this framework
- In July 2013, the D.C. Circuit Court of Appeals vacated EPA's deferral of the treatment of biogenic CO₂ emissions in Clean Air Act permitting
- D.C. Circuit extended time for submitting petitions for rehearing to 30 days after Supreme Court decision in *UARG v. EPA* (expected in early Summer 2014)
- The Court's mandate making the vacatur effective will not issue until after the Supreme Court decision
- Deferral will expire per its own terms in July 2014
- EPA is considering recommendations made by SAB in order to determine next steps

- Revision to Global Warming Potential (GWP) values (Part 98, Table A-1)
 - Final rule published Nov 29, 2013
 - Aligns Reporting Rule GWPs with IPCC's 2007 Report
 - Most GWP values increase
 - Methane increased from 21 to 25
 - Nitrous Oxide and SF₆ decreased
 - New GWPs are effective on Jan 1, 2014 for EPA permits and in states if their rules automatically update when Table A-1 is revised
 - State rules that do not automatically update will need to amend their SIPs at some point (no timetable)
 - No Retroactivity – Final PSD permits will continue to use GWPs that were in effect at issuance
 - PSD permits not yet issued should use new values if issued on/after Jan 1, 2014, assuming the new values are effective in their state

PM_{2.5} NAAQS Implementation Rule: Nonattainment NSR

- Upcoming PM_{2.5} Implementation Rule will clarify application of CAA Subpart 4 requirements to nonattainment NSR

- Proposed requirements will address:
 - Lower major source thresholds for PM_{2.5} and precursors in PM_{2.5} Serious Nonattainment Areas;
 - Potential under section 189(e) for control of all PM_{2.5} precursors (SO₂, NO_x, VOC & ammonia), with opportunity for state to exempt any precursor will not contribute significantly to ambient PM_{2.5} in the nonattainment area.

- EPA has indicated that the January 4, 2013, Court decision does not affect the PSD requirements for PM_{2.5}

- Proposal anticipated for publication Fall 2014

PM_{2.5} Significant Monitoring Concentration (SMC) and Significant Impact Levels (SILs)

- The January 22, 2013 DC Circuit Court decision in *Sierra Club v. EPA* vacated the PM_{2.5} SMC and vacated and remanded to EPA paragraph (k)(2) of two PSD rules (i.e., 40 CFR 51.166 and 52.21) containing the PM_{2.5} SILs

- The two rulemakings below address this Court decision:
 1. PM_{2.5} Vacatur Rule
 - Rule removed the PM_{2.5} SMC and (k)(2) from 40 CFR 51.166 and 52.21
 - Direct final rule published at 78 FR 73698, December 9, 2013

2. PM_{2.5} SILs Reconsideration Rule

- Rule will focus on legal and technical basis for the PM_{2.5} SILs and their use in the PSD air quality analysis
- Rule will address significant emissions rates (SER) for SO₂, NO_x and VOC as PM_{2.5} precursors and a new SER for ammonia.
- Rule will also remove mandatory newspaper notice requirement and allow additional methods (media neutral) for public notice of draft permits for major NSR and title V
- Proposal anticipated for publication early 2015

Interim Guidance for Using Condensable PM Test Results for NSR

- Developing interim guidance for using Method 202 for measuring CPM for both PSD and nonattainment NSR
- Guidance responds to potential positive bias concerns from contamination of test apparatus and solvents
- CPM over-estimation can affect source applicability determinations, air quality analyses, emissions offset calculation and source compliance activities
- Guidance will provide alternative “blank correction” procedures until EPA issues a best practices document for Method 202 and revises Method 202 as necessary
- Release of guidance anticipated in April 2014

Other Rulemakings

1. Revisions to EPA's Guideline on Air Quality Models, published as Appendix W to 40 CFR Part 51
 - In response to Sierra Club petition grant for ozone & PM_{2.5}, and technical updates to address 1-hour NAAQS
 - Rulemaking to:
 - Incorporate new analytical techniques to address ozone and secondary PM_{2.5}
 - Updates for conducting individual source and cumulative impact analysis for new 1-hour NAAQS
 - Update, as appropriate, current EPA-preferred models to address input and science issues

2. Ozone PSD and NNSR Requirements Rule

- To address screening criteria associated with planned Appendix W revisions regarding quantification of ozone impacts
- Rulemaking to:
 - Establish SILs for ozone
 - Address revised SERs for VOC and NO_x as ozone precursors, for triggering PSD and NNSR applicability and the requirement for air quality analysis, logically linked to the SILs
- Leverage concepts from PM_{2.5} SIL rulemaking to inform approach and reduce time and resources needed for rule development
- Timing considerations – Will likely coordinate this rulemaking with the Appendix W revisions (long-term rulemaking #1)

PSD Permit Extension Guidance

- To clarify what constitutes adequate justification for PSD permit extension, the Agency issued national guidance, applicable to EPA and delegated permitting authorities, on January 31, 2014
 - <http://www.epa.gov/region7/air/nsr/nsrmemos/extend14.pdf>
- The guidance clarifies that:
 - We would evaluate on a case-by-case basis whether an applicant has shown that an extension of the 18-month deadline is justified
 - Sources are strongly encouraged to request an extension in advance of the end of the 18-month period
 - For first permit extension request, a review or redo of BACT, air quality impact or PSD increment analyses should generally not be necessary.
 - For second permit extension requests, permittee's should conduct a substantive re-analysis and update of PSD requirements (BACT, air quality impact analysis, PSD increments, etc.)
 - PSD permit extensions generally should be available for an additional 18-month period following the initial 18-month timeframe (shorter or longer time periods may be granted depending on the justification provided)
 - Public notice and comment is not necessary for permit extension actions that would simply extend the deadline for commencing construction without reconsideration or amendment of the substantive conditions of the permit

QUESTIONS OR COMMENTS

