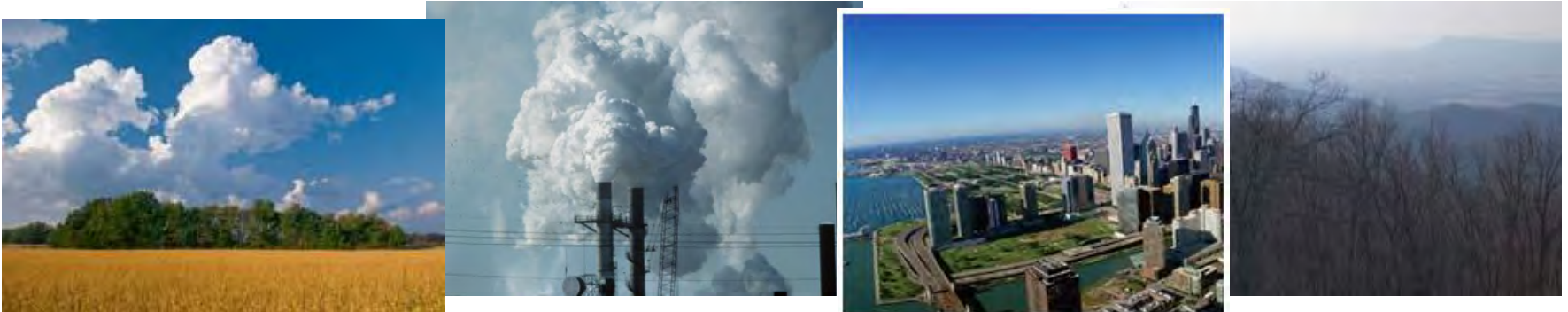


# CAA Implementation Updates

**Jeff Robinson**  
**Section Chief, Air Permits**  
**Air Permits Section, EPA Region 6**  
**October 28, 2014**

---



# Overview of Presentation

- NAAQS Schedules and Implementation
- Startup, Shutdown, and Malfunction (SSM)
- GHG Permitting
- NSR and Title V
- EPA Region 6 Air Permit Program Snapshot in 2015

# NAAQS Implementation

---

# NAAQS Reviews: Status Update

(as of October 1, 2014)

	Ozone	Lead	Primary NO <sub>2</sub>	Primary SO <sub>2</sub>	Secondary NO <sub>2</sub> and SO <sub>2</sub>	PM	CO
<b>Last Review Completed</b> (final rule signed)	Mar 2008	Oct 2008	Jan 2010	Jun 2010	Mar 2012	Dec 2012	Aug 2011
<b>Recent or Upcoming Major Milestone(s)<sup>1</sup></b>	<u>August 2014</u> Final REAs Final PA  <u>Dec 1, 2014</u> <sup>2</sup> Proposed rule  <u>Oct 1, 2015</u> <sup>2</sup> Final rule	<u>May 2014</u> Final PA  <u>2014</u> Proposed rule	<u>June 2014</u> Final IRP  <u>Fall 2014</u> 2 <sup>nd</sup> Draft ISA REA Planning Document	<u>Summer 2014</u> Final IRP	<u>Fall 2014</u> Draft IRP	Kickoff workshop for next review targeted for early 2015	<u>TBD</u> <sup>3</sup>

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

<sup>2</sup> **Bold and underlined** dates indicate court-ordered or settlement agreement deadlines

<sup>3</sup> TBD = to be determined

# Anticipated NAAQS Implementation Milestones

(as of October 1, 2014)

Pollutant	Final NAAQS Date	Infrastructure SIP Due	Designations Effective	Attainment Plans Due	Attainment Date
PM <sub>2.5</sub> (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 <sub>2</sub> (2010) (primary)	Jan 2010	Jan 2013	Feb 2012	N/A	N/A
SO <sub>2</sub> (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 <sub>2.5</sub> (2012)	Dec 2012	Dec 2015	Early 2015	Mid 2016	Dec 2021 (Mod) Dec 2025 (Ser)
Ozone (2015)	Oct 2015	Oct 2018	Dec 2017	Dec 2020-21	2020-2037

# Startup, Shutdown, and Malfunction (SSM)

---



# SSM SIP Call: Recap of EPA's February 2013 Proposal

- In February 2013, EPA proposed SIP calls to 36 states concerning identified SIP provisions for treatment of excess emissions occurring during periods of startup, shutdown and malfunction (SSM)
  - The proposal restated and invited public comment on EPA's SSM Policy as it applies to State Implementation Plans, with one change regulating affirmative defense (AD) provisions
  
- On September 5, EPA issued a supplemental proposal, to address "affirmative defense" provisions in SIPs, before finalizing the SSM SIP rulemaking already under way due to recent federal court ruling in Cement NESHAP case

# SSM SIP Call: September 5, 2014 Supplemental Proposal

- *NRDC v. EPA* (D.C. Circuit 2014): NRDC challenged EPA’s Cement NESHAP regulations; the D.C. Circuit ruled EPA does not have statutory authority to provide “affirmative defense provisions,” even in the case of malfunctions
- The September 5 supplemental notice of proposed rulemaking (SNPR) revises February 2013 proposal for AD provisions for malfunctions
- This SNPR addressed the court’s decision in NESHAP context and its implications for SIPs and how specific SIPs may be affected
  - The SNPR is limited to issues related to AD provisions and would not change what EPA proposed in February 2013 for any other issues
- SNPR affects 17 states with AD provisions



# SSM SIP Call: Toward Final Rulemaking

- EPA's rulemaking deadlines, pursuant to the settlement agreement:
  - SNPR published September 17, 2014 (79 FR 55920)
  - Final rule to be signed May 22, 2015
  
- As earlier proposed, the deadline for state action to remove provisions from their rules and make corrective SIP submissions will be 18 months after the final action
  
- Link to EPA's webpage specific to this rule is at [www.epa.gov/airquality/urbanair/sipstatus](http://www.epa.gov/airquality/urbanair/sipstatus)

# GHG Permitting

---

# GHG Supreme Court Decision

- The Supreme Court (SCOTUS) issued its decision on June 23, 2014 in *Utility Air Regulatory Group (UARG) v EPA*
  - At issue was whether EPA permissibly determined that its regulation of GHGs from new motor vehicles triggered permitting requirements under the CAA for stationary sources that emit GHGs
  - Key outcomes of SCOTUS decision:
    - EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a PSD or Title V permit
    - EPA could continue to require that PSD permits otherwise required based on emissions of non-GHG pollutants, contain limitations on GHG emissions based on the application of BACT
  
- On August 25, 2014, the D.C. Circuit Court of Appeals issued an order that parties file motions to govern future proceedings in light of the Supreme Court's decision on or before September 30, 2014

# Preliminary Views of SCOTUS Decision

- EPA memorandum dated July 25, 2014 to Regional Administrators provided preliminary information on how to proceed:
  - EPA will continue to require carbon pollution limits in permits for the largest sources
  - EPA will no longer require permits for “step 2” sources (sources that triggered permitting requirements based solely on their GHG emissions)
- The memo provided EPA’s preliminary views in response to questions regarding ongoing permitting requirements for “anyway sources” and some additional issues regarding permitting requirements for “step 2” sources
- EPA does anticipate that many SIPs and approved Title V programs will need to be revised in light of the SCOTUS decision

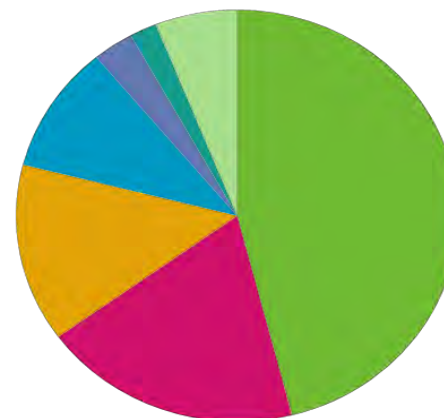
# Permitting of Anyway Sources

- For “anyway sources” continue applying existing regulations:
  - Existing sources remain subject to the PSD BACT requirement for GHG if they emit non-GHG pollutants at or above certain thresholds
  - For new “anyway” sources EPA intends to continue applying the PSD BACT requirement to GHG emissions if the source emits or has the PTE 75,000 tpy or more of GHG on a CO<sub>2</sub>e basis
  - For modified “anyway” sources EPA intends to continue applying the PSD BACT requirements to GHG if both of the following circumstances are present:
    - 1) the mod is otherwise subject to PSD for a pollutant other than GHG
    - 2) the mod results in a GHG emissions increase and a net GHG emissions increase equal to or greater than 75,000 tpy CO<sub>2</sub>e and greater than zero on a mass basis

# Tally of GHG PSD Permits (as of 10/01/14)

- 196 PSD permits with GHG limits have been issued
  - 128 issued by states
  - 68 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 Region 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; and
    - Greater consideration of plant-wide efficiency measures (e.g., use of waste heat within the process)
- Add-on GHG controls being considered as BACT, resulting in continued development of these technologies
  - CCS for CO<sub>2</sub> control at a variety of industries
  - Power generation (IC engines) from methane capture at landfills
  - Non-Selective Catalytic Reduction for N<sub>2</sub>O control from nitric acid plants
- Compliance with BACT typically shown through mass balance using fuel factors/equations from 40 CFR 98

# GHG BACT Determinations (cont.)

- Carbon Capture and Storage (CCS)
  - BACT Step 1 – EPA views CCS as an available technology for most facilities emitting CO<sub>2</sub> in large amounts and with high purity CO<sub>2</sub> streams
  - BACT Step 2 – If any of the 3 components (capture, transport or storage) is technically infeasible, then CCS is technically infeasible for the source in question
  - CCS is often evaluated in BACT Step 4, which considers costs and other impacts
  - At least 3 PSD permits issued nationwide since 2011 with CCS
- A BACT evaluation should be a case-specific analysis for each project
- BACT decisions should be supported by the record and well documented



# NSR AND TITLE V

---

# NSR: PM<sub>2.5</sub> NAAQS Implementation Rule

- Upcoming PM<sub>2.5</sub> Implementation Rule, will clarify application of CAA Subpart 4 requirements to nonattainment NSR
  
- Proposed requirements will address:
  - Lower major source thresholds for PM<sub>2.5</sub> and precursors in PM<sub>2.5</sub> Serious Nonattainment Areas;
  - Potential under section 189(e) for control of all PM<sub>2.5</sub> precursors (SO<sub>2</sub>, NO<sub>x</sub>, VOC & ammonia), with opportunity for state to exempt any precursor that does not contribute significantly to ambient PM<sub>2.5</sub> in the nonattainment area.
  
- EPA has indicated that the January 4, 2013 Court decision does not affect the PSD requirements for PM<sub>2.5</sub>
  
- Proposal anticipated late 2014

## NSR: PM<sub>2.5</sub> Significant Monitoring Concentration (SMC) and Significant Impact Levels (SILs)

- January 22, 2013 D.C. Circuit Court decision in *Sierra Club v. EPA* vacated the PM<sub>2.5</sub> 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<sub>2.5</sub> SILs
  
- The following two rulemakings address this Court decision:
  1. PM<sub>2.5</sub> SMC Vacatur Rule was published on December 9, 2013 (78 FR 73698)
    - This “Good Cause” rule removed the PM<sub>2.5</sub> SMC and (k)(2) from 40 CFR 51.166 and 52.21

# NSR: PM<sub>2.5</sub> Significant Monitoring Concentration (SMC) and Significant Impact Levels (SILs)

(cont.)

## 2. PM<sub>2.5</sub> SILs Reconsideration Rule

- The proposed rule is anticipated in early 2015 and will:
  - Establish legal and technical basis for PM<sub>2.5</sub> SILs and their use in the PSD air quality analysis
  - Address significant emissions rates (SER) for SO<sub>2</sub> and NO<sub>x</sub> as PM<sub>2.5</sub> precursors and a new SER for ammonia

# NSR: 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<sub>2.5</sub>, and technical updates to address 1-hour NAAQS
  - Rulemaking to:
    - Incorporate new analytical techniques to address ozone and secondary PM<sub>2.5</sub>
    - 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

- Rulemaking to:
  - Address the possibility of revising the SERs for VOC and NO<sub>x</sub> as ozone precursors
  - Address the possibility of having VOC and NO<sub>x</sub> triggers for requiring an ozone air quality analysis in PSD areas, set higher than the SERs
  - Establish SILs for ozone, so the PSD rule's default SIL of zero does not apply to ozone
- New ozone SILs would be used once the planned Appendix W revisions provide approaches for quantification of ozone impacts
- Timing considerations – This rulemaking will somewhat lag the rulemaking for the Appendix W revisions

# Tribal NSR Rule

## ■ Overview

- Published in the Federal Register on July 1, 2011; took effect on August 30, 2011
- Established preconstruction permitting requirements for synthetic minor sources, true minor sources and minor modifications in Indian Country
- Established preconstruction permitting requirements for major sources in non-attainment areas of Indian Country as well

## ■ Important Dates

- August 31, 2011 – Deadline for major sources in nonattainment areas and synthetic minor sources to obtain NSR permits before beginning construction
- September 2, 2014 – Deadline for true minor sources to obtain NSR permits before beginning construction
- March 2, 2016 – Deadline for oil and natural gas true minor sources to obtain NSR permits

# Amendments to Tribal Minor NSR Rule

- Finalized on May 30, 2014; effective June 29, 2014
- Added exemptions for the following emission units/activities:
  - Cooking of food, except wholesale businesses that both cook and sell cooked food
  - Single family residences and other residences with four or fewer dwelling units
  - Certain Emergency generators based on size and attainment/non-attainment status
  - Stationary internal combustion engines below 50 horsepower
  - Furnaces or boilers used for space heating
  - Air conditioning units used for human comfort
- Construction Related Terms - Defined *Begin Construction* and clarified when it applies



# Upcoming/Ongoing Actions

- **General Permits/Permits by Rule (PBR):**
  - **Bundle #1** – Proposed January 14, 2014; Final permits planned for late Fall 2014
    - Hot mix asphalt plants
    - Stone quarrying, crushing, and screening facilities
    - Gasoline dispensing facilities\*
    - Petroleum dry cleaners\*
    - Auto body repair and miscellaneous surface coating operations\*
  - **Bundle #2** - Proposed July 17, 2014 (Comment period closes September 17, 2014); Finalize December 2014
    - Boilers
    - Engines
    - Printing operations
    - Concrete batch plants
    - Saw mills
- **Advanced Notice of Proposed Rulemaking (ANPR)**
  - **Bundle #3** – Published June 5, 2014. Comment period closed August 20, 2014; Finalize March 2016
    - For oil and natural gas production sector
    - Taking comment on three options– general permits, permits by rule, Federal Implementation Plan

\*Proposed general permit or PBR alternative for these categories

# Title V Guidance Updates

- On April 30, 2014, EPA issued a Memorandum titled “Implementation Guidance on Annual Compliance Certification and Statement of Basis Requirements for Title V Operating Permits”
  - The guidance is responsive to the 2005 Title V Office of Inspector General Report, the Title V Task Force Report, as well as stakeholder interest in this type of guidance
  - The guidance describes the CAA and regulatory elements surrounding annual compliance certification and statement of basis and also provides key guidance on those programmatic elements
  - <http://www.epa.gov/Region7/air/title5/t5memos/20140430.pdf>

# Title V Rulemaking Updates

- On July 28, 2014, EPA published a final rulemaking titled, “Amendments to Compliance Certification Content Requirements for State and Federal Operating Permits Programs” (79 FR 43661)
- This action restored a sentence that was inadvertently removed from the operating permits program rules (found in 40 CFR parts 70 and 71) due to an editing error
- This rule amended the compliance certification requirements in [40 CFR 70.6\(c\)\(5\)\(iii\)\(B\)](#) and [71.6\(c\)\(5\)\(iii\)\(B\)](#)
- The restored sentence is: "If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information."

# Title V Permit Order Updates

- EPA continues to receive Title V petition orders from various types of parties including environmental groups and regulated entities
- Since January 2014, EPA has responded to 11 Title V petitions
- Anticipate at least two more before the end of 2014
- All orders can be viewed online at:  
<http://www.epa.gov/region7/air/title5/petitiondb/petitiondb.htm>
- In addition, notice of issuance of final orders is published in the Federal Register

# Commonly Raised Issues in Title V Petitions

- The issues raised in petitions can be loosely categorized into two groups: 1) those relating to ensuring the proper applicable requirements are addressed in Title V permits; and 2) those relating to ensuring that conditions and procedures necessary to assure compliance with such requirements are addressed in Title V permits
  
- More specifically, common issues include:
  - Pollutant-specific claims surrounding monitoring adequate to assure compliance with applicable requirements;
  - Adequacy of terms and conditions in Title V to incorporate state implementation plan approved rules; and
  - New source review related issues, among others.

# EPA Region 6 Air Permit Program Snapshot in 2015

---

# Focus on SIPs

- **SIP Backlog Reduction and Improved SIP Processing**
  - SIP approval decisions are consistent between EPA Regions and made within the Clean Air Act (CAA) timeframes
  - SIP backlog is reduced and future SIPs are processed in a timely manner
  - Expect several SIP actions to begin addressing backlog in LA for NSR program. Several backlog SIP actions are already under review.

# NSR and Title V Permit Oversight

- Expect EPA Region 6 to resume PSD permit reviews and Title V permit reviews in 2015.
- May focus on some specific industry sectors for minor NSR permit reviews.
- Expect EPA Region 6 to resume Title V permit reviews in 2015.
  - Evaluate more frequent use of objection letters vs. traditional use of comment letters on Title V permits on permit content and whether Title V process permitting process was appropriately followed?
  - Use EPA authority to reopen permits when process not followed or EPA discovers deficiencies in permits?



# Title V Program Audits

- OIG Report “Enhanced EPA Oversight Needed to Address Risks From Declining Clean Air Act Title V Revenues” - Oct. 20, 2014
- EPA Region 6 anticipates that it will resume conducting Title V program audits in the future (both program implementation and fee reviews, possibly specific issue/process reviews).

# The End

---