

Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule



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Overview of Presentation

- The final Tailoring Rule
- Covered pollutants
- Phase steps to include GHG PSD coverage for large sources
- Permitting for small sources and study to assess GHG permitting in the future
- State implementation considerations
- Legal underpinning of rulemaking
- Other topics addressed
 - Timing for permit streamlining techniques
 - Requests for higher category—specific thresholds and exemptions from applicability
 - Transitional issues including requests for grandfathering
 - Title V fees
 - PSD GHG technical information and guidance

The Final Tailoring Rule

- Issued on May 13, 2010
- Establishes a common sense approach for greenhouse gases (GHG) from stationary sources under the New Source Review Prevention of Significant Deterioration (PSD) and title V Operating Permit Programs for new and existing industrial facilities
- “Tailors” the requirements to focus PSD and title V permit requirements on the largest emitting facilities
- Subjects facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources to CAA permitting requirements
 - This includes the nation’s largest GHG emitters—power plants, refineries, and cement production facilities
 - Small farms, restaurants, and commercial facilities are shielded by this rule

Pollutants Covered

- Sets thresholds for GHG emissions, addressing emissions from six well-mixed GHGs:
 - Carbon dioxide (CO₂)
 - Methane (CH₄)
 - Nitrous oxide (N₂O)
 - Hydrofluorocarbons (HFCs)
 - Perfluorocarbons (PFCs)
 - Sulfur hexafluoride (SF₆)
- The aggregate sum of these six GHGs is the identified air pollutant in EPA's Light-Duty Vehicle Rule, and the associated Endangerment Finding and Cause or Contribute Finding
- To determine applicability, a source's GHG emissions are calculated as the sum of the six gases on a CO₂ equivalent (CO₂e) basis and compared against the relevant threshold

Phase-In Steps: Step 1

- January 2, 2011 to June 30, 2011
- No new permitting actions due solely to GHG emissions during this time period; only sources undertaking permitting actions anyway for other pollutants will need to address GHG
 - PSD permitting applicability:
 - Anyway sources will be subject to the PSD requirements only if they increase GHG emissions by 75,000 tpy CO₂e or more
 - Title V permitting applicability:
 - Only those sources currently with title V permits will address GHGs, and only when applying for, renewing or revising their permits
- No sources will be subject to CAA permitting requirements based solely on GHG emissions
- Covers sources responsible for 65% of total national stationary source GHG emissions

Phase-In Steps: Step 2

- July 1, 2011 to June 30, 2013
- Sources subject to GHG permitting requirements under step 1 will continue to be subject to GHG permitting requirements
- In addition, sources that emit or have the potential to emit GHGs at or above 100,000 tpy CO₂e will also be subject to GHG permitting requirements as follows.
- PSD permitting applicability – triggered with construction that increases emissions
 - A newly constructed source (which is not major for another pollutant) will not be subject to PSD unless it emits 100,000 tpy or more on a CO₂e basis
 - A modification project at a major stationary source will not be subject to PSD unless it results in a net GHG emissions increase of 75,000 tpy or more on a CO₂e basis

Phase-In Steps: Step 2 (cont'd.)

- Title V permitting applicability
 - A GHG emission source (which is not already subject to title V) will not be subject to title V unless it emits 100,000 tpy or more on a CO₂e basis.
 - These newly subject sources must apply within 1 year after becoming subject to the program, unless the permitting authority sets an earlier deadline.
 - This means that newly subject sources must apply for a title V permit on or before July 1, 2012 (which is one year from July 1, 2011).
- Covers sources responsible for nearly 70% of total national stationary source GHG emissions

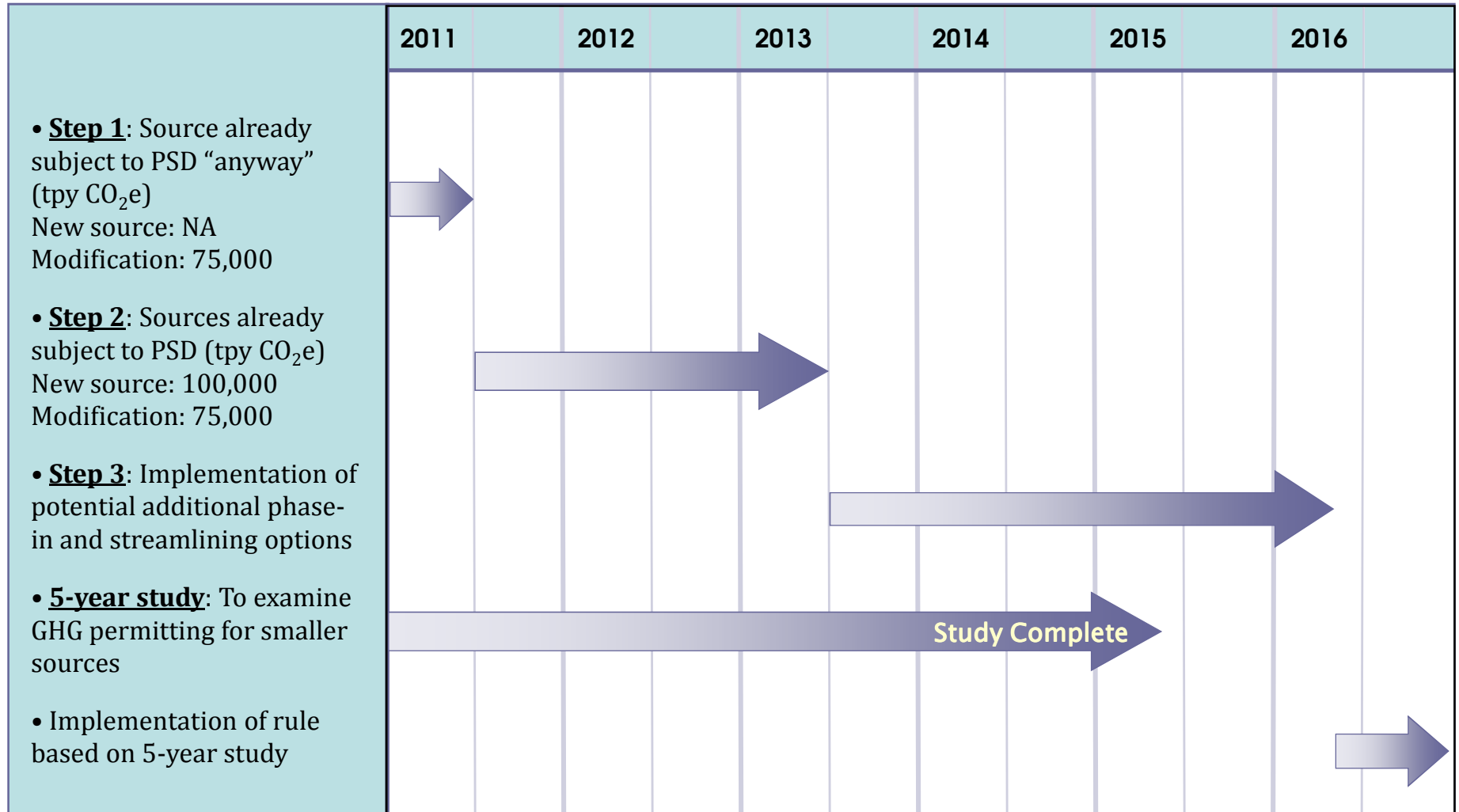
Phase-In Steps: Step 3

- The rule establishes an enforceable commitment to complete another rulemaking no later than July 1, 2012.
- We will propose or solicit comment on a possible step 3 of the phase-in plan
 - EPA will consider, during the implementation of step 2, whether it will be possible to administer GHG permitting programs for additional sources.
 - EPA will establish that step 3 would take effect on July 1, 2013 so that permitting authorities and sources can prepare for any additional GHG permitting action.
- Step 3, if different from step 2, will not require permitting of sources with GHG emissions below 50,000 tpy CO₂e
- We also commit to explore a wide range of streamlining options on which we plan to take comment in the step 3 proposal
- In addition, we plan to solicit comment on a permanent exclusion of certain sources from PSD, title V or both

Phase-in Steps: Further Action

- EPA will not require permits for smaller sources until April 30, 2016 or later
- The rule establishes an enforceable commitment for EPA to complete a study within 5 years projecting the administrative burdens that remain for small sources after EPA has had time to develop (and states have had time to adopt) streamlining measures to reduce the permitting burden for such sources
- We will use this study to serve as the basis for an additional rulemaking that would take further action to address small sources, as appropriate. We are making an enforceable commitment to complete this rulemaking by April 30, 2016
- We plan to solicit comment on a permanent exclusion of certain sources from PSD, title V or both.

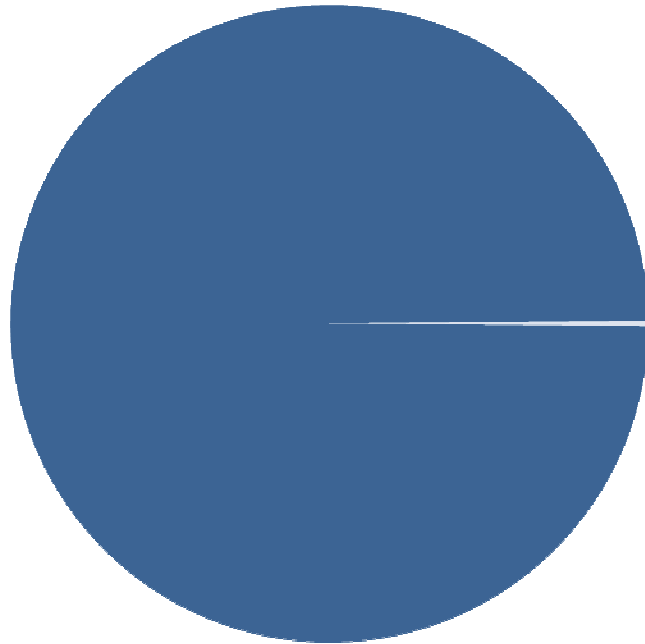
Permitting Steps under the Tailoring Rule



Operating Permits Burden Reductions

Without the Tailoring Rule

6 million sources would have needed operating permits

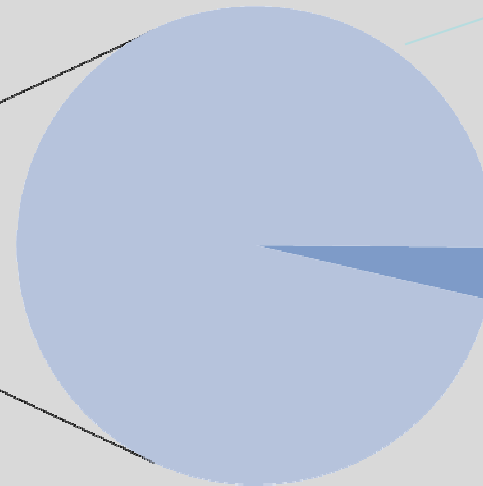


78% of total national stationary source GHG emissions would be covered

\$21 billion annual cost to permitting authorities

With the Tailoring Rule

Only 15,550 sources will need operating permits



15,000 sources **already** have operating permits

Only 550 more sources will be subject to operating permitting for GHGs alone – but not until more than a year from now.

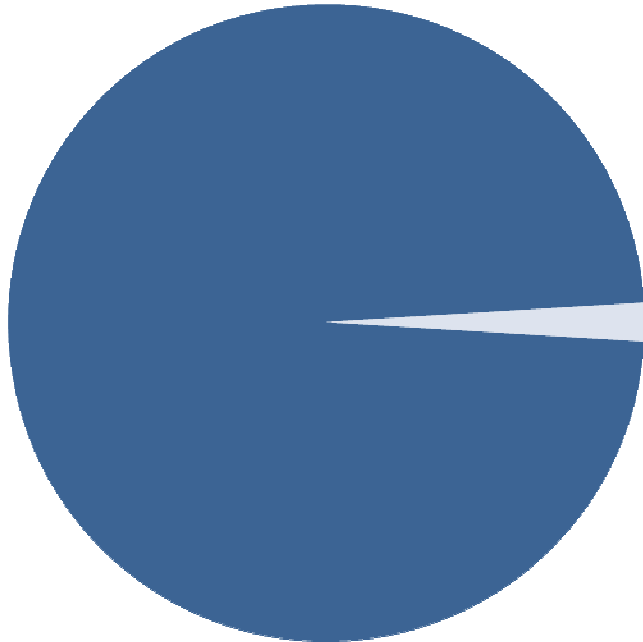
67% of total national stationary source GHG emissions would be covered

\$69 million annual cost to permitting authorities

PSD Permitting Burden Reductions

Without the Tailoring Rule

82,000 permitting actions per year would need to address GHGs

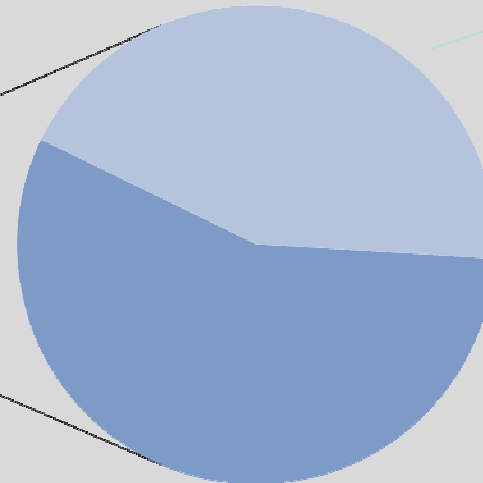


78% of total national stationary source GHG emissions are associated with facilities where actions could have occurred

\$1.5 billion annual cost to permitting authorities

With the Tailoring Rule

Only 1,600 permitting actions per year will need to address GHG



700 permitting actions that would **already** occur will need to address GHGs

900 more permitting actions will occur to address GHGs – but not until more than a year from now

67% of total national stationary source GHG emissions are associated with facilities where actions could occur

\$36 million annual cost to permitting authorities

Source Burden reductions from the Tailoring Rule

	PSD*	Title V
Estimated number of sources that would be subject to review/permitting if the tailoring rule were not in place	82,000 per year (major NSR program)	6 million initially, plus additional sources each year
Number of new sources that are subject to regulation for permitting due solely to GHG emissions in step 1	0	0
Estimated number of sources that would be newly subject to review/permitting each year under step 2 of the tailoring rule	900 (virtually all modifications)	550 (newly major sources)
Approximate number of sources that are currently subject to review/permitting each year	700	15,000

* New sources or modifications

Newly-Subject Sources

- The newly-subject sources in Step 2 are expected to include:
 - Large industrial sources from energy-intensive source categories that have not triggered permitting programs for their non-GHG emissions
 - The largest landfills
 - The largest coal mines or oil and gas production installations
- The title V costs for these sources will be less than \$10 million nationwide
 - Without the Tailoring Rule, there would have been millions of newly-subject sources and the costs would have been in the tens of billions of dollars
 - Title V does not trigger any new control requirements
- These sources will not trigger PSD unless they construct or modify in a way that significantly increases emissions
 - If they do trigger PSD, BACT decisions made by permitting authorities (usually state/local agencies) must take costs into account

State Implementation

- Comments received from States and NACAA explained even if EPA changed the federal PSD applicability thresholds and limited the scope of EPA approval of SIPs consistent with “tailored” thresholds—state rules containing the originally approved statutory thresholds would continue to apply as matter of state law.
- Rule addresses this state law issue by adding another mechanism to implement the tailoring approach for PSD
- Definition of “subject to regulation” so that the GHGs emitted by sources that fall below the tailoring thresholds are not treated as “subject to regulation”.
- To the extent state law has similar language, we think states may adopt EPA’s approach by interpreting the phrase “subject to regulation” to mean the same as EPA’s meaning for GHGs.

State Implementation (cont'd)

- “Subject to regulation” approach facilitates more rapid adoption and implementation of the tailoring rule thresholds by states before January 2, 2011
 - States may be able to implement tailoring rule thresholds without the need for additional rulemaking
- EPA will also take steps to ensure that programs do not automatically apply to sources below the tailoring rule thresholds under federal law
- **60 Day Letters:** EPA requests states to submit information to appropriate EPA Regional Administrator within 60 days after the date of publication of the Tailoring Rule in Federal Register
 - States should explain whether they will apply the meaning of term “subject to regulation” as established by EPA for GHGs for both PSD and Title V
 - If yes, whether state intends to do so without undertaking regulatory or legislative process
 - If state must revise its statutes or regulations to implement Tailoring Rule, provide an estimate to time needed to do so

Legal Basis

- This rulemaking effectuates congressional intent for air permitting under the Clean Air Act
- Three well-established doctrines form the legal basis for this rule:
 - “Absurd results”: authorizes an agency to depart from statutory requirements if the literal application would produce a result that is inconsistent with congressional intent, and particularly if it would undermine congressional intent
 - “Administrative necessity”: authorizes an agency to depart from statutory requirements if the agency can demonstrate that the statutory requirements, as written, are impossible to administer
 - “One-step-at-a-time”: doctrine authorizes an agency, under certain circumstances, to implement a statutory requirement through a phased approach.

Funding for Implementation

- The President's proposed FY 2011 budget includes \$25 million for states to prepare for and implement GHG permitting
- Title V programs are funded through fees
 - We did not alter our regulatory provisions for fees, nor did we make any findings that state title V fee programs are inadequate
 - However, the statutory and regulatory requirement that states collect fees sufficient to cover all reasonable (direct and indirect) costs required to develop and administer title V programs still applies
 - We will closely monitor approved title V programs during the first two steps of the Tailoring Rule to ensure that the added workload from incorporating GHGs into the permit program does not result in fee shortfalls that imperil operating permit program implementation and enforcement
 - If changes are necessary, the rule notes alternatives to a \$/ton fee for GHG

Other Actions and Issues

- Timing for Permit Streamlining Techniques
 - We intend to pursue streamlining options as expeditiously as possible, beginning immediately and proceeding throughout the phase-in period, and we encourage permitting authorities to do the same.
- Requests for Higher Category-Specific Thresholds and Exemptions from Applicability
 - We are not providing exemptions from applicability determinations (major source and major modification) under title V and PSD for certain GHG emission sources, emission activities, or types of emissions at this time
- Transitional Issues including Requests for Grandfathering
 - This rule does not contain any additional exemptions or grandfathering provisions addressing the transition to PSD and title V permitting for GHGs

PSD GHG Technical Information and Guidance

- **Early Summer 2010:** Develop guidance on emphasizing energy efficiency when selecting BACT for criteria pollutants which would likely also minimize GHGs.
- **Summer 2010 and ongoing:** Initial technical data and information concerning available and emerging GHG control measures
 - GHG Mitigation Strategies Database
 - RACT/BACT/LAER Clearinghouse enhancements
 - GHG technical white papers that will provide information on control techniques and measures for the largest GHG emitting industrial sectors (e.g., power plants, industrial boilers, cement plants, refineries, iron and steel, pulp and paper and nitric acid plants)
- **Before end of 2010:** General guidance for applying the PSD requirements, including BACT, for GHGs and training work shops with example BACT analyses for EPA Regions and States

PSD GHG Technical Information and Guidance

- Work closely with states who have permits pending that will include GHGs to address issues related to PSD GHG implementation questions
- Intend to seek input from stakeholders on the guidance, consistent with our ability to meet the 2010 schedule.
 - work closely with NACAA's permitting subcommittee to ensure the guidance and tools being developed are useful and will facilitate the transition to GHG PSD permitting.
 - continue to use the CAAAC and the Climate Change Work Group to help inform this effort.
 - take other opportunities to seek feedback as appropriate, given the time constraints to provide the guidance as quickly as possible.
- Continue to closely monitor guidance implementation post Jan 2011 and provide clarifications as needed.
- Will assess whether additional guidance is needed, depending on implementation experience.

Additional Questions?

- EPA point of contact on the Tailoring Rule, its implementation and development of GHG PSD guidance and technical information
 - Juan Santiago, santiago.juan@epa.gov; (919) 541- 1084
- Anna Marie Wood, wood.anna@epa.gov; (919) 541-5504
- EPA's website- www.epa.gov/nsr

1-Hour NO₂ NAAQS and PSD

Summary of April 1, 2010 Page Memo

- April 1, 2010 memo reiterates EPA policy on protecting NAAQS under PSD program
- CAA requires proposed new and modified sources to demonstrate compliance with “any” NAAQS
- EPA has historically interpreted this to apply to any NAAQS in effect at the time a permit is issued
- EPA’s position appears in various documents; goes back to 1987, when we revised the NAAQS for PM (TSP to PM10)
- Under certain circumstances, EPA has provided transition provisions as appropriate to implement new/revised NAAQS
 - Grandfather provisions
 - Surrogate Policy

1-hour NO₂ NAAQS

- New 1-hour NAAQS signed on January 22, 2010; became effective on April 12, 2010
- No specific transition provisions adopted for implementation of new 1-hour NO₂ NAAQS
- All federal PSD permits issued on or after April 12, 2010 must contain compliance demonstration for 1-hour NO₂ NAAQS
- For permits issued by states with SIP-approved programs, permits issued on or after April 12, 2010 must contain compliance demonstration for 1-hour NO₂ NAAQS
- EPA will be developing rulemaking for both NO₂ and SO₂ Significant Impact Levels (SILs)
- EPA to provide policy and modeling guidance by end of May

Policy Guidance

- Policy to be addressed in upcoming guidance
 - BACT plus-- more stringent air quality-based emissions limits
 - BACT & air quality offsets (clarify procedures)
 - Stack height and dispersion guidance (disseminate existing guidance)
 - Modeling guidance to be discussed by Chet Wayland on subsequent slides
- EPA is also exploring other policy options to address issues associated with the 1-hour NO₂ NAAQS and SO₂ NAAQS