

Greenhouse Gas Permitting: One Year After the Tailoring Rule

Michael Ling, Associate Director
Air Quality Policy Division, U.S. EPA OAQPS

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Overview

- Check in on Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule (Tailoring Rule)
- Review of EPA Efforts to Support GHG Permitting
 - Summary of available resources
 - Key points about recent guidance
 - Overview of recent Q&As
- Update on current status of GHG permitting
- Upcoming actions concerning GHG permitting

PSD and Title V GHG Tailoring Rule

- Signed on May 13, 2010
- “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 in two initial steps
 - 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
- Published June 3, 2010 – 75 FR 31514
- More information available at <http://www.epa.gov/NSR/actions.html>

Prevention of Significant Deterioration (PSD): Permitting Steps under the Tailoring Rule

PSD is aimed at reducing the amount of pollution added to the atmosphere and applies only to those newly built or substantially modified facilities.

Once the GHG standard for light duty vehicles took effect (January 2, 2011), GHGs became PSD regulated pollutants, but only from the following sources:

Step 1 January 2, 2011 to June 30, 2011:

Sources/modifications already subject to PSD “anyway”
But only if project would also increase GHG by 75,000 tpy CO₂e

Step 2 July 1, 2011 to June 30, 2013:

Continue Step 1 sources/modifications plus other large GHG emissions sources/modifications
New source: 100,000 tpy CO₂e PTE
Modification: 100,000 tpy CO₂e PTE and 75,000 tpy CO₂e increase from change

Step 3 Rulemaking to conclude no later than July 1, 2012 (and to take effect one year later)

The permitting threshold in Step 3 could be lower than the permitting threshold in Step 2, but it will be no lower than 50,000 tons CO₂e per year.

Source Burden Reductions from the Tailoring Rule

	PSD
Estimated number of sources that would be subject to review/permitting <u>if the tailoring rule were not</u> in place	82,000 per year (major NSR program)
Number of new sources/modifications that are subject to regulation for permitting due solely to GHG emissions in step 1	0
Estimated number of sources/modifications that would be newly subject to review/permitting each year under step 2 of the tailoring rule	900
Approximate number of sources/modifications that are currently subject to review/permitting each year	700

EPA Resources to Assist States and Industry

To ensure that GHG permitting runs smoothly for the larger sources that remain covered, EPA has provided the following:

- Guidance on key GHG Permitting topics (BACT, Biomass, etc.)
- White Papers on
 - utilities, refineries, cement, large commercial/industrial/institutional boilers, pulp and paper, iron and steel, and nitric acid plants
- Control Technology Clearinghouses
 - RACT/BACT/LAER, GHG Mitigation Strategies
- GHG Permitting Action Team
 - Primary and Secondary Contacts for each EPA Regional Office
 - Weekly internal meetings to address and coordinate issues
- GHG Training for States, Industry and Other Interested Stakeholders
 - www.epa.gov/apti/broadcast2010.html#GHGTraining1210
- Updates on NACAA monthly permitting committee calls; special purpose calls as needed
- Website for GHG permitting resources: www.epa.gov/nsr/ghgpermitting
 - Contains links to White Papers, Clearinghouses, Permitting Action Team, etc.
 - Updated to include new Q&A's as issued (3 posted; more likely)
 - Also updated to include EPA comment letters on proposed permits involving GHG

GHG Permitting Guidance

- Issued November 2010; technical correction posted March 2011.
- Provides statutory and regulatory background for the permitting and regulation of GHGs.
- Explains that the PSD and Title V permitting requirements are generally no different for GHGs.
- Emphasizes the importance of developing a good record.
- Document is guidance, not a rule.
 - EPA and delegated permitting authorities should follow guidance when issuing permits.
 - SIP-approved permitting authorities have discretion to establish alternative approaches, as long as they comply with CAA and Federal rules.
 - Permitting authorities have the discretion to be more stringent than the policies in guidance.
- More information available at <http://www.epa.gov/NSR/actions.html>

Highlights of Greenhouse Gas Permitting Guidance

- Long-standing and familiar permitting requirements and processes apply to GHGs
 - BACT determinations continue to be state- and project-specific decisions
 - GHG BACT is not prescribed for any source type
- In most cases, energy efficiency improvements will satisfy the BACT requirement for GHGs.
- Carbon Capture and Sequestration (CCS) should be considered an available control option for certain types of sources, but required consideration of costs will likely rule CCS out for now.
- Specific types of fuels or facility design neither required nor precluded
 - A BACT analysis for greenhouse gas emissions does not need to consider a fuel switch that would fundamentally redefine the source.

Biomass and GHG Permitting

- Debate about how to account for CO₂ emissions from bioenergy and other biogenic sources from stationary sources–
- In Jan 2011, EPA announced an expedited rulemaking to defer completely the application of pre-construction permitting requirements to biomass-fired CO₂ *and other biogenic* CO₂ emissions for a **period of three years**.
 - Proposal available at <http://www.epa.gov/nsr/actions.html>; (comment period ended May 5)
 - Deferral applies to CO₂ emissions only.
- EPA will use this time to conduct a detailed examination of the scientific and technical issues associated with biogenic CO₂ emissions and develop an accounting methodology, including a review by an independent panel
 - Science Advisory Board solicitation for panel nominations at <http://yosemite.epa.gov/sab/sabproduct.nsf/0/2F9B572C712AC52E8525783100704886?OpenDocument>
- We will use the results of this study to develop a rulemaking on how biogenic CO₂ emissions should be treated and accounted for in PSD and Title V permitting based on the feedback from the scientific and technical review.

Interim Guidance – Biomass Permitting

- EPA has issued **interim guidance** to help permitting authorities establish a basis for concluding that BACT for GHG at some sources is the combustion of biomass fuels alone.
 - May be used in permit actions where deferral is not available
 - May be revisited after biomass study is complete

- Provides a rationale to support elimination of GHG control options during the ‘Energy, Environmental, and Economic Impacts’ portion of the BACT analysis
 - Conclusion to eliminate an option must still be supported in the permit record
 - Applies only to control options being considered for GHG from biomass fuel combustion
 - cannot be used to eliminate control options for GHG emissions from non-combustion processes (but original BACT guidance addresses that)

- Guidance available at:
<http://www.epa.gov/nsr/ghgdocs/bioenergyguidance.pdf>

Recent GHG Permitting Q&A's

- *When does PSD apply to GHG and non-GHG pollutants at “non-anyway” sources and modifications?*
- *In States (or local districts) where GHG permitting is done under a FIP but where permitting of other regulated NSR pollutants is done under an EPA-approved state implementation plan (SIP), who issues the permit if a proposed new source or modification involves both GHGs and non-GHGs?*
- *May a source be issued a permit with a plant-wide applicability limitation (PAL) for greenhouse gases (GHG)?*

Observations Concerning GHG Permits Reviewed by EPA

- Adequate support and explanation of GHG control considerations and decisions
- Inclusion of and adequate support and explanation for form of GHG BACT emissions limit
 - Numerical limit, design standard or some other type of requirement in lieu of numerical limit
- Practical enforceability, compliance monitoring to measure efficiency over time
- Bottom line: documentation of GHG control considerations and BACT limits is very important
- For more information: www.epa.gov/nsr/ghgpermitting

GHG Permitting: The Year Ahead

- Late June 2011 – Final Action on Biomass Deferral from Permitting
- July 1, 2011 – PSD and Title V begin to apply to large GHG sources ($\geq 100,000$ tpy CO₂e) and modifications ($\geq 75,000$ tpy CO₂e) that would not previously have been subject to those programs
- January 2012 – Proposed Tailoring Step 3 Rule
- Spring 2012 – Biomass scientific study released
- July 2012 – Final Tailoring Step 3 Rule (one year for states to adopt)
- Late 2012 – If necessary, proposed rule addressing biomass study
- July 2013 – Tailoring Rule Step 3 goes into effect
- Ongoing – Additional Q&A's, guidance as necessary