

# GHG Permitting: Regulatory Update

Juan E. Santiago, Group Leader  
Air Quality Policy Division, Operating Permits Group  
NACAA 2011 Permitting and Enforcement Workshop  
Chicago, Illinois  
June 14, 2011

# Overview

- GHG Rulemaking Updates
  - Biomass and GHG Permitting
  - Tailoring Rule Step 3
- Tailoring Rule Step 2
  - Permitting burden expectations
- GHG Permitting Tools

# Upcoming Rules / Actions

- Step 3 Rulemaking
  - To establish thresholds from July 2013 to April 2016
  - Rule must be completed by July 2012
  - Levels could stay the same or go as low as 50K
  - Gives us the opportunity to assess the manageability of GHG permitting

# Upcoming Rules / Actions

- Biomass Deferral
  - Biomass Scientific Study / GHG Accounting Rule
  - In Jan 2011, EPA announced an expedited rulemaking to defer completely the application of pre-construction permitting requirements to biomass-fired CO<sub>2</sub> *and other biogenic* CO<sub>2</sub> 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 CO<sub>2</sub> emissions only.
  - EPA will use this time to conduct a detailed examination of the scientific and technical issues associated with biogenic CO<sub>2</sub> 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 CO<sub>2</sub> emissions should be treated and accounted for in PSD and Title V permitting based on the feedback from the scientific and technical review.

# Upcoming Rules / Actions

- Tailoring Rule Discussed Potential Streamlining Techniques
  - General permits
  - Presumptive BACT
  - Defining PTE for smaller sources
  - Electronic permitting
  - Applying lean techniques to the permitting processes
- Title V Program Revisions to adopt tailoring rule
- 5 Year Study / Step 4
- Most of these will require State adoption (SIP and title V program changes)

# What Lies Ahead: Tailoring Rule Steps 2

## 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 CO<sub>2</sub>e PTE*  
*Modification: 100,000 tpy CO<sub>2</sub>e PTE and 75,000 tpy CO<sub>2</sub>e increase from change*
- Covers sources responsible for nearly 70% of total national stationary source GHG emissions.

## What Lies Ahead: Tailoring Rule Step 2

- Potential Additional Permitting Actions
  - 550 sources could become newly major at 100K CO<sub>2</sub>e threshold
  - 900+ potential PSD action per year
- Source Categories that could be Affected
  - Pulp and paper
  - Lime manufacturing
  - Electronics Manufacturing
  - Chemical production plants
  - Underground coal mines
  - Food and beverage production
  - Landfills
  - Hospitals

# 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](http://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](http://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 GHG 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.

# 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)?*