

EPA Regulation of Greenhouse Gases – Tailoring & Next Steps by EPA

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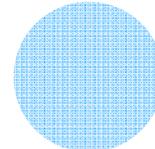


GHGs – EPA’s New CAA

Pollutant

Background – GHG Regulation

- 7 11 08 Advanced notice of Proposed Rulemaking
- 12 18 08 Interpretive Rule (i.e. Johnson Memo – 2/17/09 Reconsider)
 - What triggers & when do GHGs become CAA “regulated”?
- 9 15 09 Proposed GHG Automobile Tailpipe Stds
- 9 30 09 Proposed “Tailoring Rule”
 - Rule would limit Major Source Permitting to largest GHG sources
- 12 7 09 Endangerment Finding Final (FR -12/15/09)
 - Required Step to regulate GHGs under the CAA
- EPA committed to GHG Regulation
 - Moving at record speed to do it!



What is the problem with the

CAA?
NSR/PSD - Covers all pollutants “**subject to regulation**”

- 100/250 TPY is the highest threshold allowed
- Very small source: < 0.5 MMBTU/HR
- Regulation is on a Potential to Emit basis

PSD Permit: complex, costly and slow!

- Costs over \$200,000 to get one
- 18 months after submittal to get permit
- Can't begin construction on change w/o it

Business Impact:

All sites would be Major – PSD/Title V



Most Significant Impact -

PSD

Title V Issue

- Cost & Regulatory Complexity

PSD - Major Issue

- Critical Business Implications – Speed to market new products

Once a site is major for one pollutant (GHG), they are major for PSD and subject to significance thresholds for all modifications:

- PM – 15/10 TPY
- NO_x, VOC – 40 TPY

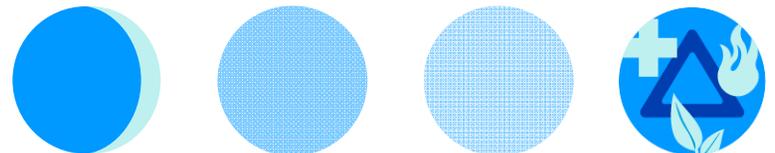
Impact: Permit changes that once required state minor NSR permits now would require Federal PSD permits.

- Affects ability to make changes – speed to market
- Will not be able to get permits needed for changes



Federal PSD vs. State Permitting

“Under PSD, once a source is determined to be major for any regulated pollutant, a BACT review is performed for each attainment pollutant whose emissions exceed its PSD significance level as part of a new construction or modification project at the source. *In addition to performing a BACT review, the source must analyze the impact of the project on ambient air quality to assure that no violations of any NAAQS or PSD increments will result and must analyze impacts on soil, vegetation and visibility.* Sources or modifications that would impact Class 1 areas (e.g. national parks) may be subject to additional requirements.... There are currently no NAAQS or PSD increments established for GHGs and therefore these PSD requirements would not apply to GHG emission sources, even when PSD is triggered for GHG emission sources. *However, as noted previously, if PSD is triggered for a GHG emissions source, all regulated NSR pollutants which the new source emits in significant amounts would be subject to PSD requirements. Therefore, if a facility triggers review of regulated NSR pollutants that are non-GHG pollutants for which there are NAAQS or increments, the air quality, additional impacts and Class I requirements would apply to those pollutants.*” (Proposed Tailoring Rule Preamble)



US EPA's Plan to Regulate GHGs – Unintended Consequences

EPA's assessment on NSR/PSD:

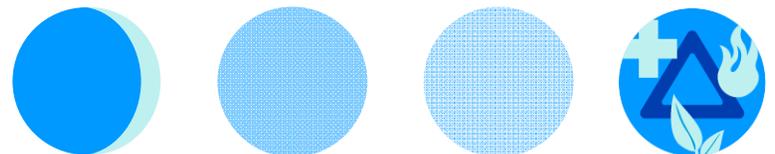
41,000 PSD permits vs. 280 per year

- \$250 Million/year cost for resources

EPA's assessment of Title V Implications:

6.1 MILLION new Title V permits vs. 15,000

- \$15 BILLION in new costs for permits



EPA's Plan to Reduce Impact

Proposed GHG PSD "Tailoring Rule"

EPA's Plan:

Temporarily:

- **Raise PSD & Title V Major Source threshold from 250 to 25,000 tons per year CO₂e**

Problem: CAA threshold is clearly not 25,000 TPY

So: Over next 5 years:

- Investigate streamlining options
- Lower thresholds to get as close as possible to CAA



Comparison of Sites affected by GHG Reporting Rule to Tailoring

GHG Reporting Rule PSD Tailoring Rule

- **25,000 tonne threshold**

- **Based on Actual Emissions**

- **Affects 10 P&G sites**

- **9 of 10 sites already Major**

- **Reporting only**

- **25,000 ton threshold**

- **Based on Potential (PTE)**

- **Affects 27 PG sites**

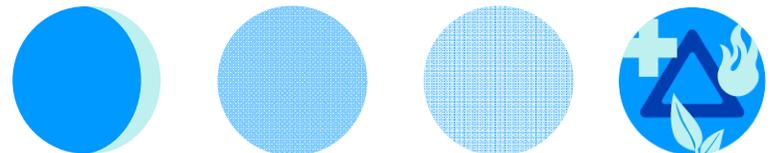
- **14 of 48 sites Major -Title V**

- **10 of 48 sites Major - PSD**

- **13 New Title V sites**

- **17 New PSD Sites**

- **Changes that required state construction permits would require Federal PSD permits**



Assessment of Tailoring Rule Impact

	Title V	GHG RPT Rule	Actual GHG Emissions Metric Tons	Potential GHG Emissions Short Tons
Existing Title V SITES				
Tech Site A	Yes	No	17,534	126,213
Site A	Yes	No	22,514	71,873
Site B	Yes	No	19,248	95,291
Site C	yes	Yes	50,074	252,269
Site D	Yes	Yes	367,474	881,390
Site E	Yes	Yes	281,663	611,083
Site F	Yes	Yes	556,252	615,816
Site G	Yes	Yes	245,438	255,372
Site H	Yes	Yes	188,383	536,407
NEW PSD SITES				
Site I	No	Yes	29,344	100,918
Site J	No	No	16,998	50,675
Site K	No	No	16,546	45,163
Site L	No	No	1,594	88,118
Site M	No	No	12,000	41,061
Site N	No	No	14,662	41,019
Site O	No	No	13,407	76,254
Site P	No	No	5,935	41,608
Site Q	No	No	13,171	55,281
Tech Site B	No	No	14,249	55,281
Site P	No	No	9,959	44,595
Tech Site C	No	No	9,210	33,825
Tech Site D	No	No	2,074	29,534
Tech Site E	No	No	4,926	55,155



Impact on Industrial Facilities Proposed vs. Final Tailoring Rule

Proposal:

25,000 PTE Major Source with
10,000 Sign. Threshold

- Effective 5/31/2010

P&G Impact:

Title V Sites inc. from 14 to 27

- 13 New Title V Sites

PSD Sites inc from 10 to 27

- 17 New PSD Sites

Final Rule:

100,000 PTE Major Source with
75,000 Sign. Threshold

Effective 7/1/2011

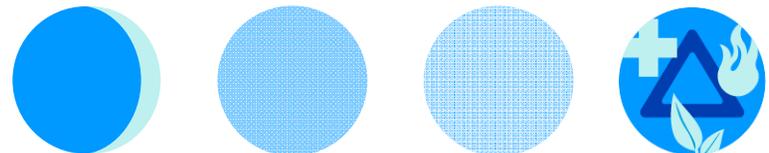
Effective 1/2/2011

P&G Impact:

1 New PSD Site

0 New Title V Sites

7 More PSD/Title V Sites by 2016



EPA Plans to Increase GHG Permitting

Hard-wired into Tailoring Rule

- 6 3 10 – Tailoring Rule Final (100,000 Threshold)
 - Phase 1 (1 2 11)
 - Phase 2 (7 1 11)
- 7/1/2012 – Final Rule to Lower Tailoring Thresholds:
 - 7/1/2013 - lower thresholds become effective (not <50,000 TPY)
- 4/30/2015 – EPA Burden Study complete & Proposal
- 4/30/2016 – Final Rule lowering Threshold (<50,000)

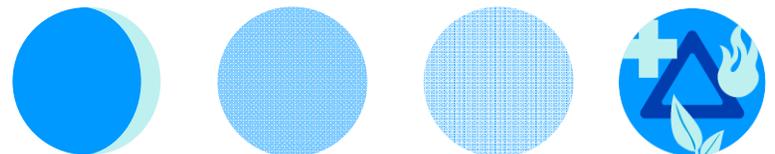


Current GHG Rules/Actions

Tailoring Rule Step 3

- To Establish applicability thresholds - July 2013 to April 2016
- Rule must be completed by July 2012
- Levels could stay at current levels or go as low as 50,000 tons, depending on an assessment of the manageability of GHG permitting

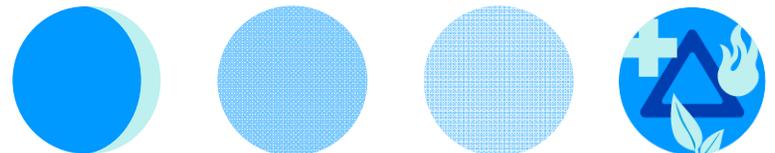
What about EPA's streamlining techniques (general permits, presumptive BACT), Title V program revisions to address GHGs??



Step 3 Tailoring Proposal

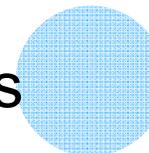
Published 3 8 2012

- EPA proposes to keep threshold at 100,000 TPY until Step 4.
- EPA also proposes two “streamlining” approaches to “improve” the administration of GHG PSD and Title V permitting programs:
 - Addresses implementation of GHG PALs
 - Creates the regulatory authority for EPA to issue synthetic minor limitations for GHGs in areas subject to a GHG FIP.
- Comments are due April 20, 2012



Evaluation of Threshold Changes & Impact

- Current Level – 100,000 TPY- 67% of GHG emissions
 - 552 new major sources, 5326 covered facilities
- 90,000 TPY
 - 739 new major sources, 5756 covered facilities
- 80,000 TPY
 - 1009 new major sources, 6298 covered facilities
- 75,000 TPY
 - 1116 new major sources, 6441 covered facilities
- 60,000 TPY
 - 1503 new major sources, 7561 covered facilities
- 50,000 TPY
 - 3539 new major sources, 9980 covered facilities



EPA Proposed “Streamlining” GHG PALs for “GHG-Only” Sources

- “GHG Only” source
 - PTE $\geq 100/250$ TPY GHG + 100,000 TPY CO₂e
 - PTE < Major source thresholds for other pollutants
 - I would say it’s a source that is major only for GHG, but
 - EPA says **PTE $\geq 100/250$ TPY GHG makes it major** (“but for Tailoring rule”)
- PAL Alternatives:
 - Major Source Opt-in Approach
 - Give GHG-only sources to become existing major stationary sources & “thus receive PALs for GHGs and any other pollutant emitted by the source”
 - Minor Source Approach
 - A GHG-only source would remain a minor source. Only GHG PAL allowed.
 - All PALS are “actual PALS” based on actual emissions + 75,000 increase
 - ACTUALS BASED PALS must give up capacity – difference between permitted emissions and actual emissions but take only the allowed increase for 10 years then roll the dice.



Other “Streamlining” Proposed

Federal Synthetic Minor Source Permitting Authority for GHGs

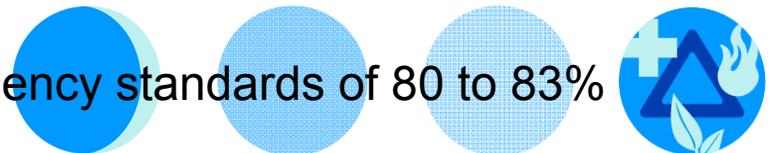
- Synthetic Minor Permits used to avoid PSD Major source/major modification or Title V applicability.
- Done by states today.
- Concern is that EPA doesn’t have authority for minor source permitting in areas subject to GHG FIP and Indian Country
 - EPA proposes to create synthetic minor permit authority to issue “subject to regulation” permit limits on a CO₂e basis for GHGs and to amend the Federal minor NSR program in Indian country to issue synthetic minor permits for GHGs...
- EPA wants to do this just in case there is a gap and states do not have viable mechanisms to issue synthetic minor limits for GHGs
- Is this necessary??? Don’t states do this today???



Other Streamlining Considered

Redefining Potential to Emit and Source Category Specific PTE

- Proposed Synthetic Minor rule – give sources option to accept enforceable limits on operations (e.g. agreeing to limit hours of operation)
- Do we need categorical rules for this??
- General Permitting for GHGs
 - Should EPA create General Permits for GHGs?
 - What categories? What public process? New facilities??
- Presumptive BACT for GHGs??
 - Categories? Industrial Boilers?
 - How to Update? Should you link to energy star/Standards?
 - For example, for ENERGY STAR certification, residential boilers need AFUE ratings >85%.
 - This compares to 2007 DOE boiler efficiency standards of 80 to 83%



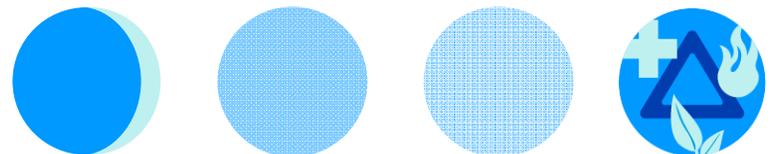
Reaction:

Pleased EPA has not proposed to reduce the threshold
YET,

Tremendously concerned with unintended consequences
creating new Major Sources for Title V and PSD
because of GHGs.

PSD permits are problematic now with NAAQS – no
need to add more to the existing problem by sweeping
more facilities into Federal Permit program.

Streamlining???



What is next for GHG Permitting?

Tailoring Step 4 rule

- Final Rule 4 30 2016
- How low will it go???

Litigation?

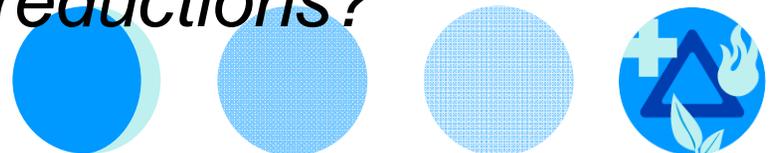
What will the DC Court of Appeals Decide?

Will the case get to the Supreme Court?

Legislation?

Will Congress step in and set the limits at the 100,000 threshold if EPA's Tailoring Rule is illegal?

What if EPA proposes further reductions?



What should Facilities do?

1. Remember – Title V permit apps due 7/1/2012
2. Evaluate PTE for GHGs
3. Avoid Title V & PSD applicability if possible
 - Request limits on GHGs to limit CO₂e PTE to <100,000 TPY
 - Before 7/1/2012 to avoid Title V Applicability
 - Can avoid PSD applicability by obtaining GHG limit any time before project that would otherwise trigger PSD
4. If avoidance is not possible
 - Begin preparing Title V applications for submittal by 7/1/2012
 - Anticipate long and complex PSD permitting for your facility

