Overview of the Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule

Mr. Don Van Schaack
AFIT/CEV
Donald.vanschaack@afit.edu
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Air Force Institute of Technology, AFIT/CEV, Wright Patterson AFB, OH, 45433

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Overview

• Steps in GHG Permitting
• Rule Implementation
• PSD Greenhouse Gas (GG) requirements
• Title V GG Requirements
Steps in Permitting of GHGs

• May 2007- Supreme Court Ruling
• December 2009- Endangerment finding on GHGs
• April 2010- GHG Emission standards for Light-duty vehicles
  • 2 Jan 11- Stationary source permitting triggered
• May 2010- GHG Title V/PSD Tailoring Rule
• March 2011 - Guidance to states on GHGs permitting
Rule Implementation

- Two-step phase in of requirements for largest emitter of GHGs
  - Facilities responsible for nearly 70% of GHG emissions
- Expand rule to cover large sources of GHG not previously covered by CAA
- Additional EPA steps
  - Looking at smaller sources
PSD Requirements

Step 1 (2 Jan 2011- 30 Jun 2011)

- Only sources that are constructed or modified that have increase or net increase in emissions over thresholds required to address GHG emissions under PSD
- For GHG increases over 75,000 TPY CO$_2$e would have Best Available Control Technology (BACT) requirements AND
- Greater than 0 TPY on a TPY mass basis
PSD Requirements

• Step 2 (1 July 2011 – 30 Jun 2013)
  • Builds upon Step 1
  • Three scenarios where PSD applies to GHG emissions
• Scenario 1:
  • Modification subject to PSD (for other NSR pollutant) and has GHG emissions increase and net emissions increase:
    \[ \geq 75,000 \text{ TPY } \text{CO}_2\text{e} \text{ AND } > 0 \text{ TPY mass basis} \]
PSD Requirements

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• Step 2 (1 July 2011 – 30 Jun 2013)-(con’t)
  • Scenario 2 (Both below conditions must apply)
    • Existing source has a PTE ≥ 100,000 TPY CO₂e AND 100/250 TPY mass basis
    • Modification has a GHG emissions increase and net emissions increase ≥ 75,000 TPY CO₂e AND > 0 TPY mass basis
PSD Requirements

- Step 2 (1 July 2011 – 30 Jun 2013)-(con’t)
  - Scenario 3 (Both below conditions must apply)
    - Source is an existing minor source for PSD
    - Modification alone has actual or potential emissions ≥ 100,000 TPY CO$_2$e AND 100/250 TPY mass basis
Title V Requirements

• Step 1 (2 Jan 2011 – 30 Jun 2011)
  • Only sources currently subject to a Title V Permit would be subject to Title V Requirements for GHG
  • No sources would be subject to CAA permitting requirements due solely to GHG emissions
Title V Requirements

• Step 2 (1 Jul 2011 to 30 Jun 2012)
  • Comply with Step 1
  • Facilities can now require Title V permits for GHG emissions alone
    • Threshold is 100,000 TPY CO$_2$e AND
    • 100 TPY GHG mass basis
• EPA estimates 550 sources will need Title V permits for GHG emissions
  • Majority will be solid waste landfills and industrial manufacturers
Title V Permitting Requirements

- Sources that fall under Step 1 or Step 2 must ensure applicable GHG requirements addressed in Title V permit
  - Permits must contain conditions to prove compliance
- EPA anticipates initial applicable requirements will be GHG control requirements resulting from PSD actions
Additional Step- Step 3

- Commence in 2011 and end NLT 1 Jul 12
- Will discuss whether smaller sources can be permanently excluded from permitting
- EPA will propose viable streamlining options
- Permits not required for smaller sources in Step 3 or other actions until at least 30 Apr 16
- Step 3 (if necessary) will not require permitting for sources < 50,000 TPY
Other Steps

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- End of Apr 2015 - EPA to complete study on remaining permit burdens that would exist if Step 3 applied
  - Rule by 30 Apr 2016 to address these facilities
    - Decide if streamlining is needed to phase in more sources or permanent exclusion from permitting
  - Step 3 (if necessary) will not require permitting for sources < 50,000 TPY
EPA Technical Tools/Resources

- White Papers on:
  - Numerous sources including large commercial/industrial/institutional boilers,
- Control Technology Clearinghouses
  - RACT/BACT/LAER
  - GHG Mitigation Strategies
- GHG Permitting Action Team
- GHG Training for Permitting Authorities, Industry and Other Stakeholders
- One-stop website for GHG permitting resources: www.epa.gov/nsr/ghgpermitting.html
Summary

- PSD/Title V Tailoring Rule – final rule 13 May 2010
  - Rule defines when permits are due under both programs
- Facilities responsible for nearly 70% of national GHG emissions covered under rule
- Requirements became effective 2 Jan 11
  - Implemented in two steps