



# GREENHOUSE GASES: REGULATORY ACTIVITIES IN MINNESOTA

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# OVERVIEW

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- Federal GHG Reporting Rule
- Federal tailoring rule for permits
  - Impact on facilities in Minnesota
  - Rulemaking to conform with the federal thresholds
  - Implementation



# FEDERAL GHG RULE

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## ◎ Mandatory annual reporting of GHGs

- Specific sectors or sectors with actual emissions of 25,000 tpy CO<sub>2</sub>e
- Carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, perfluorochemicals, other fluorinated gases (e.g. NF<sub>3</sub>, HFEs)

## ◎ Report directly to US EPA

- Electronic reporting
- Certification





# EPA REPORTING

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- ◉ Total GHG emissions (MT of CO<sub>2</sub>e)
  - All source and supply categories
  - Each GHG
  - Breakdown emissions within each source category (e.g. unit or process level)
  - Activity data



# EPA REPORTING SCHEDULE

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- ◎ Facilities and suppliers began collecting data January 1, 2010
- ◎ First emissions report due March 31, 2011
- ◎ New vehicles and engine manufacturers will start reporting with 2011 model year
- ◎ Reports submitted annually



# UPDATES SINCE THE RULE WAS FINALIZED

## ◎ Finalized additional reporting sectors

- Magnesium production
- Underground coal mines
- Industrial wastewater treatment
- Industrial waste landfills

Will have to start  
monitoring in 2011 and  
reporting in 2012

## ◎ Published proposed Confidentiality Determinations





# MORE EPA REPORTING RULE UPDATES

- ◎ Proposed sectors to be finalized in 2010
  - Electronics Mfg
  - Fluorinated gas production
  - Petroleum and natural gas systems
  - Use of electric transmission and distribution equipment
  - Imports / Exports: Equipment pre-charged with fluorinated GHGs or containing fluorinated GHGs in closed-cell foams
  - Carbon dioxide injections and geological sequestration
  - Mfg of electric and distribution equipment
- ◎ Report in 2012 for 2011 emissions



# GHGs AND PERMITS: BACKGROUND

- ◎ 2007: Supreme Court says GHGs covered by Clean Air Act
- ◎ 2008: EAB requires CO<sub>2</sub> BACT; Johnson memo
- ◎ 2009: Endangerment finding, draft “tailoring” rule
- ◎ 2010: Review of Johnson memo; vehicle standards; final tailoring rule





# FINAL EPA TAILORING RULE

## ◎ Pollutant Definition

- GHGs = Aggregate group of 6 gases
  - Same six gases as reporting rule
  - Warming potential normalized to carbon dioxide equivalent (CO<sub>2</sub>-e)

## ◎ Threshold (PSD & Part 70)

- 100,000 tpy CO<sub>2</sub>-e (Potential to Emit or “PTE”)
  - PSD Modifications: 75,000 CO<sub>2</sub>-e PTE



# FINAL EPA TAILORING RULE

## ◎ Who is affected?

- As of January 2, 2011
  - New facility or modification
  - Already subject to PSD/NSR or Part 70
    - PSD construction permits
      - Net GHG increase of 75,000 tpy or more, CO<sub>2</sub>-e



# FINAL EPA TAILORING RULE

## ◎ Who is affected?

- As of July 1, 2011

- New or existing facilities
  - GHGs are at least 100,000 tpy CO<sub>2</sub>-e and 100/250 tpy on mass basis
  - PSD Modifications: GHG increase of 75,000 tpy or more, CO<sub>2</sub>-e
- Some facilities previously permitted as minor sources that have not begun construction
- Applications for operating permits from existing facilities generally due June 30, 2012





# FINAL EPA TAILORING RULE

## ◎ Future EPA rulemaking

- By July 1, 2012
  - EPA to solicit comment on lower thresholds
  - Changes to be effective by July 1, 2013
- By April 30, 2015
  - EPA to study administrative burdens of GHG permitting
  - Changes to be effective by April 30, 2016
  - After April 30, 2016, EPA might require GHG permits when PTE below 50,000 tpy CO<sub>2</sub>-e



# MINNESOTA

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- ◎ PSD rules effective immediately
  - Minnesota is a delegated state
- ◎ Part 70 rule: add federal GHG threshold
- ◎ Other changes
  - Modifications during first half 2011
  - Registration and capped permits
  - Insignificant activities / minor amendment
  - EMS provisions

# CURRENT RULEMAKING

## ◎ Exempt rulemaking process

- Have rule in place by EPA effective date
  - January 2, 2011
- Temporary rule, effective for 2 years
- Submitted to OAH on November 29, 2010
- 5-day comment period
  - 9 comments received
- 14-day judicial review







## Air Rulemaking

## IN THIS SECTION

Air Quality Rules Possible  
Rule Amendments  
Governing Prevention of  
Significant Deterioration of  
Air Quality

Air Quality Possible Rule  
Amendments Governing  
Municipal Waste  
Combustors, Medical Waste  
Incinerators and  
Commercial/Industr

### Possible Air Quality Rule to Establish a Mercury Emission Inventory and Reduction Requirements

- Air Quality Rules: Possible Rule to Adopt Federal Air Permit Thresholds for Greenhouse Gases

### Air Quality Rules: Possible

## Air Quality Rules: Possible Rule to Adopt Federal Air Permit Thresholds for Greenhouse Gases

The MPCA proposes to modify its air permit rules to incorporate new federal permit requirements for greenhouse gas (GHG) emissions.

## What are the new federal requirements?

On May 13, 2010, EPA issued a final rule to establish permit thresholds for GHG emissions. This rule affects two permit programs: 1) the Prevention of Significant Deterioration (PSD) program for construction permits; and 2) the Part 70 operating permit program, also called the Title V program.

The new emissions threshold for GHGs is a potential to emit (PTE) of 100,000 tons per year (tpy) of carbon dioxide equivalent (CO<sub>2</sub>-e). PSD modifications have a "significance level" of 75,000 CO<sub>2</sub>-e. The significance level under the PSD rules is the amount of pollution above which a facility has to do additional analyses such as Best Available Control Technology determination and air emission modeling.

This rule defines GHGs as an aggregate group of 6 gases. These are:

- Carbon dioxide (CO<sub>2</sub>)
- Nitrous oxide

**SEE ALSO**

- ▶ Climate Change: Mobile Air Conditioners
- ▶ Climate Change Publications: Reports and Fact Sheets
- ▶ Integrated Solid Waste Management Stakeholder Process
- ▶ Climate Change: Regulatory Initiatives, Programs, and Policies

## RECENT

**New !**

- ▶ Air Quality Rules: Possible State Greenhouse Gas Emission Reporting Rule
- ▶ Possible Air Quality Rule to Establish a Mercury Emission Inventory and Reduction Requirements
- ▶ Air Rulemaking
- ▶ Air Quality Possible Rule Amendments Governing Municipal Waste Combustors, Medical Waste Incinerators and Commercial/Industr

# FUTURE MPCA RULEMAKING

- ◎ Normal rulemaking process
  - Make temporary rule changes permanent
  - Begin in early 2011
  - Stakeholders
  - 30-day public notice



# FACILITIES

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## ◎ Affected facilities – major sources

- Current permit holders: approximately 100
  - Electric generation, compressor stations, large industrial facilities, mines, ethanol plants
- New requirement for Part 70 or PSD permit
  - Large landfills, others TBD





# WHAT TO EXPECT: NEAR-TERM

- ◎ Pending PSD Permits
- ◎ GHGs needed in public notice starting January 2, 2011
- ◎ Rule requires facilities to determine their GHG PTE by certain date
- ◎ If GHGs make you newly-major for NSR or Part 70.... action will be needed



# HOW MIGHT YOUR PERMIT CHANGE?

- ◎ Some units no longer insignificant
- ◎ Other than BACT, no new GHG applicable requirements
- ◎ Permit type may need to change
- ◎ May have GHG limits to avoid being major



# IMPLEMENTATION TOOLS

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- ◎ Calculation Form EC-17 (July 2010)
- ◎ Other forms now include GHG
- ◎ Factsheets updated for federal changes
- ◎ Working on edits for state rule changes
- ◎ Outreach for existing permit holders
  - Email, insert with EI, letters
- ◎ EPA training

