



2010 MWEA Biosolids Conference

Federal Greenhouse Gas Rules

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■ Segments

1. USEPA Mandatory GHG Reporting Rule
 - Subpart A General Provisions
 - Subpart C for Stationary Fuel Combustion Sources
 - Subpart JJ for Manure Management Systems
2. USEPA Proposed GHG Permitting Rules
 - EPA's planned next steps



USEPA Mandatory GHG Reporting Rule

Subparts A, C, and JJ



Who is Currently Regulated (General)?

- In general:
 - Fossil fuel suppliers
 - Industrial gas suppliers
 - Manufacturers of vehicles and engines outside of the light-duty sector
 - Electric generators
 - **Users of fossil and biogenic fuels**
 - Selected manufacturing and production facilities
 - Operators of destruction processes for certain refrigerants
 - Municipal solid waste landfills
 - **Manure management systems** – “EPA will not be implementing subpart JJ of the Mandatory GHG Reporting Rule due to a Congressional restriction prohibiting the expenditure of funds for this purpose.”



Who is Regulated (EPA Classifications)?

- Relevant USEPA stationary source classifications in the regulations:
 - C - Stationary fuel combustion sources
 - There is a two step process for threshold determination (fossil fuel combustion capacity and greenhouse gas emissions)
 - Step 1 – fossil fuel combustion capacity
 - 30 million British thermal units per hour (MMBtu/hr) of coal
 - 50 MMBtu/hr of natural gas
 - 35 MMBtu/hr of fuel oil
 - Step 2 – greenhouse gas emissions of 25,000 metric tons CO₂e or more per year
 - Only emissions from stationary fuel combustion need be reported by this source category
 - JJ - Manure management systems that emit CH₄ and N₂O in amounts equivalent to 25,000 metric tons CO₂e or more per year – EPA implementation currently blocked by FY2010 interior appropriations bill



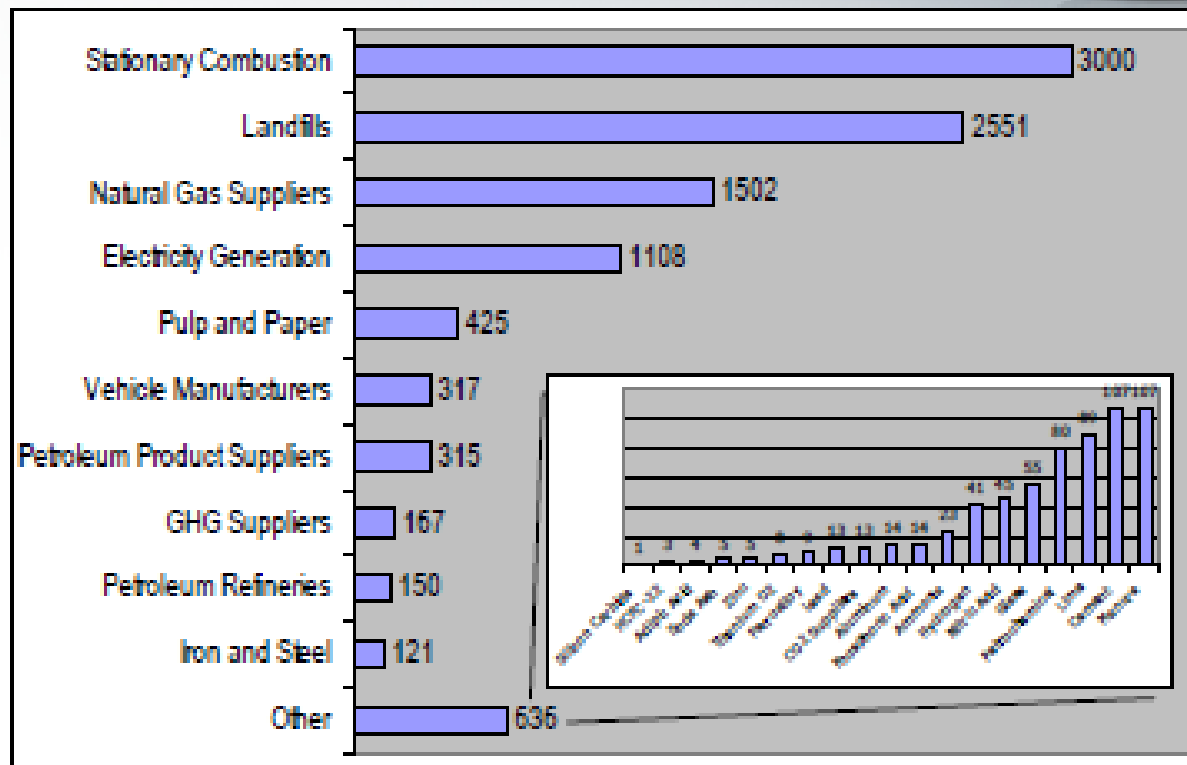
What Additional Sources May Be Regulated?

- Some sources were proposed for regulation but dropped from the final rules – these may be revisited at a later date
 - Electronics manufacturing
 - Ethanol production
 - Fluorinated GHG production
 - Food processing
 - Industrial landfills
 - Magnesium production
 - Oil and natural gas systems
 - SF6 from electrical equipment
 - Underground coal mines
 - **Wastewater treatment**
 - Suppliers of coal



Who is Regulated? (Source: USEPA)

About 10,000 U.S. Facilities Covered





What is Regulated?

Greenhouse Gas	Chemical Symbol	CO ₂ Equivalent Emissions (Multiplier)
Carbon dioxide	CO ₂	1
Methane	CH ₄	21
Nitrous oxide	N ₂ O	310
Sulfur hexafluoride	SF ₆	23,900
Hydrofluorocarbons	HFCs	12 – 11,700
Perfluorocarbons	PFCs	6,500 – 17,340
Other fluorinated gases (e.g., NF ₃ and HFEs) with various multipliers		

CO₂ equivalents are typically noted as CO₂e.
For example, 2,000 tons of methane is reported as 42,000 tons of “CO₂e”.



What is the regulatory threshold?

- For manure management (EPA implementation currently blocked by FY2010 interior appropriations act) and stationary fuel combustion source categories – threshold is 25,000 metric tons per year of CO₂e *emitted*
 - For manure management that would equate to 1,190 metric tons of methane emitted per year (without inclusion of nitrous oxide emissions)
 - “Default” (worst case) animal populations tripping the threshold:
 - Beef 29,300
 - Dairy 3,200
 - Swine 34,100
 - Poultry layers 723,600
 - Poultry broilers 38,160,000
 - Turkeys 7,710,000



How can I check to see if I trip the threshold?

- Visit the USEPA website to use simple applicability assessment tools

Main portal:

<http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>

Applicability tool:

<http://www.epa.gov/climatechange/emissions/GHG-calculator/index.html>

(but the calculator for manure management is blocked)



When Do Regulatory Requirements Apply?

- **September 22, 2009** USEPA published the final regulation
- **October 30, 2009** the final regulation was published in the Federal Register (FR)
- **October 30, 2009** the FY2010 interior appropriations bill was signed into law (blocking EPA's implementation of GHG reporting for manure mgmt.)
- **December 29, 2009** is the effective date of the rule (sixty days after FR publication)
- **January 1, 2010** monitoring requirement begins
- **January 28, 2010** monitoring extension requests are due to USEPA (30 days after the effective date)
- **April 1, 2010** monitoring must be in full compliance with the rule unless an extension has been granted
- **April 1, 2010** monitoring plans must be completed
- **December 31, 2010** those who applied for monitoring extensions must be in full compliance with the rule
- **December 31, 2010** closes the first full year of monitoring
- **January 2011** USEPA plans to roll out their electronic reporting system
- **March 31, 2011** reports are due for calendar year 2010 (Subpart C reports can be abbreviated in the first year only)



USEPA *Proposed* GHG Permitting Rules

EPA's planned next steps



EPA's Agenda

- Reducing greenhouse gases is a top priority for Lisa Jackson
 - She recently defended her position to Congressional members
- EPA has made its endangerment finding
- EPA has stated that the purpose of the data collection through the mandatory GHG reporting is to help with rulemaking for further regulation
- GHG permitting requirements are currently proposed (Tailoring Rule)



GHG Thresholds in the Tailoring Rule

- Under the Title V operating permits program, EPA is proposing a major source emissions applicability threshold of 25,000 tons per year (tpy) of carbon dioxide CO₂e for existing industrial facilities. Facilities with GHG emissions below this threshold would not be required to obtain an operating permit.
- Under the Prevention of Significant Deterioration (PSD) portion of NSR—which is a permit program designed to minimize emissions from new sources and existing sources making major modifications—EPA is proposing a:
 - Major stationary source threshold of 25,000 tpy CO₂e. This threshold level would be used to determine if a new facility or a major modification at an existing facility would trigger PSD permitting requirements.
 - Significance level between 10,000 and 25,000 tpy CO₂e. Existing major sources making modifications that result in an increase of emissions above the significance level would be required to obtain a PSD permit. EPA is requesting comment on a range of values in this proposal, with the intent of selecting a single value for the GHG significance level.



For Further Information - Contact

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