

GREENHOUSE GAS MONITORING AND REPORTING RULE

**Eco-Systems, Inc.
Consultants, Engineers, and Scientists**

GHG Global Warming Potential

Greenhouse Gas	100-Year Warming Potential
CO ₂	1
CH ₄	21
N ₂ O	310
Hydrofluorocarbons	12 - 11,700
Perfluorocarbons	6,500 - 9,200
Sulfur Hexafluoride	23,900

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Applicability

- (a) (1): Facilities in this category must report
- (a) (2): Categories must report if they emit 25,000 MT or more of CO₂e per year
- (a) (3): Stationary fuel combustion sources emitting 25,000 MT or more of CO₂ e per year.
- (a) (4): Supplier category



Category (a) (1)

- I. Electricity Generation (units that report CO₂ emissions year-round through CFR part 75)
- II. Adipic acid production
- III. Aluminum production
- IV. Ammonia manufacturing
- V. Cement Production
- VI. HCFC-22 production
- VII. HFC-23 destruction processes that are not collected with a HCFC-22 production facility and that destroy more than 2.14 metric tons of HFC-23 per year
- VIII. Lime Manufacturing
- IX. Nitric acid production
- X. Petrochemical production
- XI. Petroleum refineries
- XII. Phosphoric acid production
- XIII. Silicon Carbide production
- XIV. Soda ash production
- XV. Titanium dioxide production
- XVI. Municipal solid waste landfills that generate CH₄ in amounts equivalent to 25,000 metric tons CO₂e or more per year, as determined according to Subpart HH of this part.
- XVII. Manure management systems with combined CH₄ and N₂O emissions in amount equivalent to 25,000 metric tons CO₂e or more per year



Category (a) (1)

Additional Categories in 2011 and future years

XVIII. Electrical Transmission & Distribution

XIX. Underground Coal Mines

XX. Geologic Sequestration of CO₂

XXI. Electrical Transmission & Distribution Equipment
Manufacture or Refurbishment

XXII. Injection of CO₂

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Category (a) (2)

I. Ferroally Production

II. Glass Production

III. Hydrogen Production

IV. Iron and Steel Production

V. Lead Production

VI. Pulp and Paper Manufacturing

VII. Zinc Production



Category (a) (2)

Additional Source Categories in 2011 and Future Years

VIII. Electronics Manufacturing

IX. Fluorinated Gas Production

X. Magnesium Production

XI. Petroleum & Natural Gas Systems

XII. Industrial Wastewater Treatment

XIII. Industrial Waste Landfill

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Emissions Summary

- Must use the methodologies listed in relevant subparts
- Must use same methodology to calculate emissions throughout a reporting year
- Provide written explanation for change in methodology
- EPA will verify emission calculations



Recordkeeping

- Must keep records for at least three years
- Records can be maintained in electronic or hard copy format
- Records may be maintained off site
- If maintained in electronic format, a software to read electronic records must be made available



Reporting

- Once Subject to this Rule the Facility Must Report GHG Emissions to EPA
- Cease Reporting if:
 - Reported Emissions are $< 25,000$ MT CO₂e for five consecutive years
 - Reported Emissions are $< 15,000$ MT CO₂e for three consecutive years
 - All the operations listed in (a)(1) through (a)(4) cease to operate (Not applicable to seasonal or temporary cessation)
- Records must be maintained for 3 years after the last reporting year
- Must Resume reporting if Emissions $> 25,000$ MT CO₂e in any year after



Reporting

- Submit report Directly to EPA
- Submit Electronically
- Submit no later than March 31st of following year*
- Designated Representative (DR) is responsible for certifying, signing, and submitting GHG reports and any other submissions.

*Extended to September 30th 2010 for submittals

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Submittal of Data

- Submittal of report by DR or Agent designated by DR and registered by EPA
- Electronic reporting database is out for testing
- Eco-Systems is Beta testing the database (Sandbox testing)



Permitting Considerations

- Best Available Control Technology (BACT) Considerations
- Greenhouse Gases (CO₂, Methane, etc.)



Permitting Considerations

RACT/BACT/LAER Clearinghouse (RBLC) for
Carbon Dioxide

- Six facilities found in RBLC
- Good Combustion Practices
- Good Operation Practices
- Afterburner and Good Combustion Practices
- No Pollution Prevention or Add-On Controls

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Permitting Considerations

RBLC for Methane

- 3 Facilities Found

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Permitting Considerations

RBLC for Hydroflouorocarbons

- No Facilities Found

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Permitting Considerations

RBLC

for

- Sulfurhexafluoride
- Nitrous Oxide
- Perfluorocarbons

No Entries Found

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