

GREEN HOUSE GASSES

APRIL 26, 2012

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Title V Applicability

Definitions

Greenhouse Gases (GHGs)	<p>The aggregate group of six gases:</p> <p>Carbon dioxide (CO₂) Sulfur hexafluoride (SF₆) Hydrofluorocarbons (HFCs)</p> <p>Nitrous oxide (N₂O) Methane (CH₄) Perfluorocarbons (PFCs)</p>
Metric ton	<p>Required unit for reporting by the Mandatory Reporting Rule</p> <ul style="list-style-type: none"> ➤ Approximately 2,205 lb ➤ 1 metric ton = 1.10231 short tons
Short ton	<p>Required unit for emissions calculations by the Tailoring Rule</p> <ul style="list-style-type: none"> ➤ Approximately 2,000 lb
CO₂e	<p>Mass emissions of the GHG multiplied by its Global Warming Potential</p> <p>http://www.epa.gov/ozone/geninfo/gwps.html</p>
Global Warming Potential (GWP)	<p>Found in Table A-1 to Subpart A of part 98 (see below)</p>

Affected Industry Types by Category

All-in Source Categories:

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| <ul style="list-style-type: none">•Electricity Generation (if report CO₂ year-round through Part 75)•Adipic Acid Production•Aluminum Production•Ammonia Manufacturing•Cement Production•HCFC-22 Production•HFC-23 Destruction Processes (that are not collocated with a HCFC-22 production facility and that destroy more than 2.14 metric tons of HFC-23 per year)•Lime Manufacturing•Nitric Acid Production | <ul style="list-style-type: none">•Petrochemical Production•Petroleum Refineries•Phosphoric Acid Production•Silicon Carbide Production•Soda Ash Production•Titanium Dioxide Production•Municipal Solid Waste Landfills that generate CH₄ equivalent to 25,000 metric tons CO₂ e or more per year•Manure Management Systems that emit 25,000 metric tons CO₂ e or more per year <small>[EPA will not be implementing the manure management rule due to a Congressional restriction prohibiting expenditure of funds for this purpose]</small> |
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Threshold Source Categories*

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| <ul style="list-style-type: none">•Ferroalloy Production•Glass Production•Hydrogen Production•Iron and Steel Production | <ul style="list-style-type: none">•Lead Production•Pulp and Paper Manufacturing•Zinc Production |
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* >25,000 metric tons CO₂ e per year from all source categories, combustion units, and miscellaneous use of carbonates.

PSD Applicability

- A new, major source for any other regulated NSR pollutant with a potential to emit GHGs of 75,000 tpy or more on a CO₂e basis.
- An existing major source for any other regulated NSR pollutant that will have an emission increase for a NSR pollutant other than GHGs, and GHG emissions that equal or exceed:
 - 0 tpy on a mass basis, **and**
 - 75,000 tpy or more on a CO₂e basis
- Sources with potential to emit GHG that equals or exceeds the following will be considered MAJOR sources:
- On a mass basis:
 - 100 tpy for sources in any of the 28 source categories listed under PSD, or 250 tpy for any other stationary source, **and**
 - 100,000 tpy on a CO₂e basis

Title V Permitting

- Any sources undergoing Title V renewal must consider GHG emissions.
- Sources with potential to emit GHG that equals or exceeds the following will be considered MAJOR sources:
 - 100 tpy on a mass basis, **and**
 - 100,000 tpy on a CO₂e basis

GHG EPA Web-links

GHG Tailoring Rule

<http://www.epa.gov/NSR/actions.html#may10>

GHG Reporting Rule

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

GHG Equivalency Calculator

<http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

GHG Chapter 4 Industrial Processes

<http://www.epa.gov/climatechange/emissions/downloads12/US-GHG-Inventory-2012-Chapter-4-Industrial-Processes.pdf>