

Client Alert

Latham & Watkins Environment, Land &
Resources Department

US EPA Mandates Nationwide Greenhouse Gas Reporting Beginning January 1, 2010

"The Rule now forces a resolution of whether ... the Clean Air Act's 'major source' permitting provisions will trigger at [this] time ... or instead, only if and when EPA imposes GHG emissions controls."

On September 22, 2009, the United States Environmental Protection Agency (EPA) released its final Rule for "Mandatory Reporting of Greenhouse Gases."¹ This Rule will become effective 60 days after its publication in the Federal Register, which is expected to occur within a few weeks.

The Rule responds to a congressional mandate directing EPA "to require mandatory reporting of greenhouse gas emissions above appropriate thresholds in all sectors of the economy of the United States" no later than June 26, 2009.² This mandate followed the US Supreme Court's decision in *Massachusetts v. EPA* that greenhouse gas (GHG) emissions satisfy the Clean Air Act's "air pollutant" definition and that EPA will be obligated to regulate such emissions in the event the Agency makes an "endangerment" finding.³

Significance of Rule

Formal Regulatory Regime for Tracking GHG Emissions. The Rule imposes GHG monitoring and reporting requirements on 31 categories of sources beginning on January 1, 2010, with the first reports due on March 31, 2011. Reporting under the Rule will identify individual sources operating in the US that fall within these categories and provide a regulatory system for year-to-year tracking of their GHG emissions.

Much of the information reported under the Rule likely will become public.

Relationship to "Cap and Trade" Legislation. The Rule has not been designed to create the GHG emissions inventory envisioned as necessary to support a GHG emissions allowance "cap and trade" program by the American Clean Energy and Security Act of 2009 (ACES) that passed the US House of Representatives in June and is now being considered by the Senate. Nevertheless, the Rule contains several of the features that ACES would mandate for such an inventory, including the requirement for continuous emissions monitoring (CEMS) for many source categories.

Deferred Source Categories. The Rule does not include the following source categories that were part of the proposed rule: electronics manufacturing; ethanol production; fluorinated GHG production; food processing; magnesium production; oil and natural gas systems; SF₆ from electrical equipment; underground coal mines; industrial landfills; wastewater treatment; and suppliers of coal. EPA has not exempted these categories, but rather deferred finalizing them pending additional rulemaking to resolve technical issues. The timing for this additional rulemaking remains uncertain.

“Major Source” Clean Air Act Permitting

The Rule now forces a resolution of whether the phrase “subject to regulation” under the Clean Air Act’s “major source” permitting provisions⁴ will trigger at the time EPA requires monitoring and reporting for GHG emissions, or instead only if and when EPA imposes GHG emissions controls.⁵ In a December 18, 2008 memorandum, EPA established a legal interpretation that such permitting is triggered only with emissions controls. In February 2009, EPA granted a petition for reconsideration of this interpretation. On September 30, EPA issued a Notice for comment that reflects its reconsideration of this issue and its preferred position to retain the December 2008 legal interpretation. This Notice has since been published in the Federal Register and comments on the reconsideration are due December 7, 2009.⁶

Concurrent with this Notice, EPA has issued a proposed rule—referred to as the “Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule”—*that would constitute the regulation imposing GHG emissions controls.*⁷ This proposed rule would do so via the Title I (preconstruction) and Title V (operating) “major source” permitting programs. Instead of applying the current Title I “major source” threshold of 250 tons per year (tpy) to GHG emissions, the proposed rule would “tailor” this threshold to reach sources accounting for more than 70 percent of domestic GHG emissions. It would set a “major source” GHG emissions threshold of 25,000 tpy carbon dioxide equivalent (CO₂e), which, according to EPA, would have the effect of requiring all existing sources at or above this threshold to obtain a Title V operating permit. New sources above this threshold likewise would require a Title I Prevention of Significant Deterioration (PSD) permit prior to construction as would modifications at existing “major

sources” exceeding a “significance” level of between 10,000 to 25,000 tpy CO₂e. The Title I PSD permitting process would establish Best Available Control Technology (BACT) for GHGs. This proposed rule should be published shortly in the Federal Register and will have a 60-day comment period.

Overview of the Rule’s Key Requirements

The Rule requires annual reporting by entities with operations in 31 different source categories, which EPA estimates will cover about 85 percent of GHG emissions⁸ in the United States.⁹ In addition, EPA has deferred taking final action on another 11 source categories. Appended to this *Alert* are two tables that summarize how EPA addressed each source category. Appendix A reviews the basic reporting requirements for each source category covered under the Rule. Appendix B identifies each of the deferred categories and the rationale for deferral. An overview of the sources subject to the Rule and its other key features follows.

Sources Subject to the Rule

“Downstream” Facilities

The Rule applies to any “facility” with operations that fall within one or more “source categories.” For certain source categories, the Rule will trigger regardless of the facility’s GHG emissions levels from those operations. For other source categories, the Rule will trigger only when the facility’s GHG emissions from those operations exceed 25,000 tpy CO₂e. The “downstream” facilities subject to the Rule breakdown as follows:

1. **Non-Threshold Facilities.** Facilities with operations in any one of 14 source categories—including, but not limited to, aluminum, cement, titanium dioxide and petrochemical producers, petroleum refineries and electricity generators subject to the

federal Acid Rain Program—must submit an annual report irrespective of GHG emissions.¹⁰

2. Single Source Threshold Facilities.

Facilities with operations in either of two source categories—Municipal Solid Waste Facilities and Livestock Facilities—that emit at or above 25,000 tpy CO₂e must submit an annual report.¹¹

3. Combined Source Threshold

Facilities. Facilities with operations in any of seven source categories—including but not limited to ferroalloy, glass, lead and iron and steel production—must submit an annual report if their emissions from these operations, combined with emissions from stationary fuel combustion units and miscellaneous uses of carbonates, are at or above 25,000 tpy CO₂e.¹²

4. Combustion Sources At Facilities.

Facilities (regardless of source category) not otherwise required to submit an annual report, must do so to cover GHG emissions from their “General Stationary Fuel Combustion Sources,” such as boilers, simple and combined-cycle combustion turbines, engines, incinerators and process heaters, if: the aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility is 30 million British thermal units per hour (mmBtu/hr) or greater; and the facility emits at or above 25,000 tpy CO₂e from all stationary fuel combustion sources (excluding portable equipment, emergency generators and emergency equipment).¹³

“Upstream” Suppliers

The Rule also applies to suppliers of fuels and GHG products based on their level of production, import and export—*i.e.*, producers, importers or exporters of coal-based liquid fuels, petroleum products, and natural gas;¹⁴ suppliers of industrial GHGs, such as producers and bulk importers or

exporters of fluorinated GHGs or nitrous oxide; and suppliers of carbon dioxide.¹⁵ As identified in Appendix A, producers of fuels, industrial GHGs and CO₂ generally must report regardless of the amount of product produced annually, while importers and exporters of these products must report annual imports or exports of 25,000 tpy CO₂e or more.

Mobile Sources

The Rule does not require mobile sources, including fleet operators and vehicle owners, to report at this time because such emissions will be covered by reports from fuel suppliers (as previously described) and engine manufacturers. The Rule requires reporting of CO₂ emission rates by manufacturers and importers of vehicles and engines used in vehicles that are outside of the light-duty sector (including heavy-duty trucks, motorcycles and off-road engines) beginning with model year 2011, and of other GHGs in later model years.¹⁶ Cars and light-duty trucks are excluded from the rule.

Scope and Timing

Timing

Each entity subject to the Rule must begin collecting GHG emissions data on January 1, 2010, and submit their first annual report on March 31, 2011, with reports due each March 31st thereafter.¹⁷ For 2010 only, facilities that trigger a reporting obligation only for their combustion sources can submit an abbreviated GHG report.¹⁸

Exclusions

1. Research and Development. The Rule excludes research and development activities connected with any of the covered source categories.¹⁹

2. Sources Below the 25,000 tpy CO₂e Threshold. For source categories subject to a 25,000 tpy CO₂e reporting threshold, the annual reporting

obligation will not apply to entities with emissions (or supplies of product for “upstream” entities) below such threshold. The Rule is structured, however, to impose a reporting obligation based on the prior year’s emissions (or supply) levels. Thus, *if an entity has reason to believe its operations could meet or exceed the 25,000 tpy threshold, the entity will want to consider appropriate compliance approaches for assessing its ongoing operations against this threshold and for gathering the requisite GHG data in the event the entity ends up triggering reporting under the Rule.* EPA has provided an online tool that facilities and suppliers can use to determine whether they are subject to the Rule.²⁰

- 3. Sources Above the 25,000 tpy CO₂e Threshold That Subsequently Fall Below It.** Where the proposed rule had a “once-in-always in” requirement—*i.e.*, a facility subject to the rule based on its exceeding a reporting threshold would have to continue reporting even if its emissions later dropped below that threshold—the final rule provides several mechanisms through which facilities and suppliers that reduce their GHG emissions below threshold can cease annual reporting.²¹ Facilities and Suppliers may cease reporting: (a) after five consecutive years of reported emissions below 25,000 tpy CO₂e;²² (b) after three consecutive years of reported emissions below 15,000 tpy CO₂e;²³ or (c) if the GHG-emitting processes or operations cease.²⁴ If emissions (or quantities in products supplied) surpass the 25,000 tpy threshold in subsequent years, those facilities or suppliers must begin reporting again.²⁵

Relationship to Other Reporting Programs

The Rule does not preempt any existing (or future) state or regional GHG reporting programs.²⁶ Many of these

programs collect data that are different from or in addition to those required by the Rule, and may establish lower thresholds for reporting or request information on areas not addressed in EPA’s reporting rule (*e.g.*, electricity use or emissions related to other indirect sources). Entities covered under any state or regional reporting programs must continue to report as required by those programs.

Monitoring Methods

The Rule specifies monitoring methods (or in some cases, emissions assessment methods) for each source category,²⁷ including four “Tiers” of CO₂ calculation methodologies for General Stationary Fuel Combustion sources that do not otherwise fall within specific source categories.²⁸ Facilities that already directly monitor and record emissions data, such as power plants subject to the federal Acid Rain Program, must continue to measure and report data in the same manner.²⁹

The Rule allows use of “best available monitoring methods” during the first quarter of 2010 for “any parameter (*e.g.*, fuel use, daily carbon content of feedstock by process line) that cannot reasonably be measured according to the monitoring and QA/QC requirements”³⁰ Facilities can request an extension beyond March 2010. Such requests must be received within 30 days of the effective date of the Rule (60 days after publication in the Federal Register) and must include a description of the reason for the request and, in some cases—*e.g.* where monitoring equipment cannot be procured or installed in time to meet the deadline—additional documentation of the reason must accompany the request. In no event will EPA approve requests for an extension beyond 2010.³¹

Annual Report

1. **Content.** The Rule specifies the annual report elements for each

source category, including the volume of CO₂, methane (CH₄), nitrous oxide (N₂O) and fluorinated GHGs emitted by each regulated source category at a facility, as well as the aggregate GHG emissions for the entire facility. In some cases, a facility will be able to report aggregated emissions for smaller sources. Suppliers must report the annual quantities of these same gases that would be emitted from combustion or use of the products supplied.³²

2. **Certification.** Reporting companies must self-certify their emissions reports via a "designated representative" who will certify all emission reports, and must formally designate that individual in a submittal to EPA at least 60 days before the deadline for submission of the facility's or supplier's initial emission report.³³ EPA will verify emission reports through audits and inspections, and will undertake enforcement actions for failures to report and misreporting.³⁴

3. **Record Retention.** The following records must be maintained in electronic or hard copy, as appropriate, for a period of three years: (a) a list of all units, operations, processes, and activities for which GHG emission were calculated; (b) the data used to calculate the GHG emissions for each unit, operation, process and activity, categorized by fuel or material type; (c) the annual GHG reports; (d) missing data computations; (e) a written GHG Monitoring Plan; (f) the results of all required certification and quality assurance tests of equipment used to provide data; and (g) maintenance records for all monitoring equipment.³⁵ Records may be kept off-site so long as they are readily available for expeditious inspection and review.³⁶

4. **Violations.** The Rule establishes the following as violations: failure to report GHG emissions; failure to

collect data needed to calculate GHG emissions; failure to monitor and test continuously as required; failure to retain records needed to verify the amount of GHG emissions; and failure to calculate GHG emissions following the methodologies specified in the Rule.³⁷ Each day of a violation is considered a separate violation.³⁸ Notably, the Rule affords the opportunity to correct reporting errors within 45 days of discovery (or of being notified by EPA of errors) by submitting a revised annual report.³⁹

5. **Confidentiality.** "Emissions data" submitted under the Rule are not considered "Confidential Business Information" (CBI). Although the Rule itself does not address the confidentiality of information submitted, in the Preamble EPA recognizes that while the questions of "whether information claimed as CBI meets the definition of CBI,⁴⁰ as well as whether it meets the definition of emissions data, are usually made on a case-by-case basis, such an approach would be cumbersome given the scope of this rule and the potential inconsistencies across reporters and source categories and the compelling need to make data that are not CBI, or are emissions data, available to the public."⁴¹ Therefore, EPA will use a notice-and-comment process to establish those data elements required to be submitted under the Rule that are "emissions data" and hence will not be afforded the protections of CBI, and may identify classes of information that are not emissions data, and are CBI. EPA plans to initiate this effort in late 2009 or in early 2010.

Endnotes

¹ The Final Rule is available at: <http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>. The Preamble is available at: <http://www.epa.gov/climatechange/emissions/downloads09/FinalMandatoryGHGPreamble.pdf>.

- ² See FY2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110–161).
- ³ See *Massachusetts v. Environmental Protection Agency*, 549 US 497 (2007).
- ⁴ See 40 C.F.R. § 52.21(b)(50) (defining the term “regulated NSR pollutant” to include any pollutant “that otherwise is subject to regulation under the [Clean Air Act].” See also 42 U.S.C. §§ 7475(a)(4), 7479(3).
- ⁵ Memorandum from Stephen Johnson, EPA Administrator, to EPA Regional Administrators, RE: EPA’s Interpretation of Regulations that Determine Pollutants Covered by Federal Prevention of Significant Deterioration (PSD) Permit Program (Dec. 18, 2008); see also 73 Fed. Reg. 80300 (Dec. 31, 2008) (public notice).
- ⁶ See Prevention of Significant Deterioration (PSD): Reconsideration of Interpretation of Regulations That Determine Pollutants Covered by the Federal PSD Permit Program, 74 Fed. Reg. 51535 (Oct. 7, 2009).
- ⁷ Available at: <http://www.epa.gov/nsr/documents/GHGTailoringProposal.pdf>.
- ⁸ The Rule covers the following GHG: Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfurhexafluoride (SF₆), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and other fluorinated greenhouse gases including nitrogen trifluoride (SF₃) and any fluorocarbon except for controlled substances as defined at 40 C.F.R. Part 82, subpart A and substances with vapor pressures of less than 1mm of Hg absolute at 25°C. 40 C.F.R. § 98.2.
- ⁹ Preamble at p. 20.
- ¹⁰ 40 C.F.R. § 98.2(a)(1).
- ¹¹ 40 C.F.R. § 98.2(a)(2).
- ¹² 40 C.F.R. § 98.2(a)(2).
- ¹³ 40 C.F.R. §§ 98.2(a)(3) and 98.30.
- ¹⁴ See subpart LL (40 C.F.R. § 98.380; coal-based liquid fuels), subpart MM (40 C.F.R. § 98.390; petroleum products), and subpart NN (40 C.F.R. § 98.400; natural gas and natural gas liquids).
- ¹⁵ See subpart OO (40 C.F.R. § 98.410; industrial greenhouse gases).
- ¹⁶ The Rule incorporates new requirements into the existing reporting requirements for motor vehicles and engine manufacturers in 40 C.F.R. Parts 86, 87, 88, 90, 94, 1033, 1039, 1042, 1045, 1048, 1051, 1054, and 1065.
- ¹⁷ 40 C.F.R. § 98.3(b).
- ¹⁸ 40 C.F.R. § 98.3(d).
- ¹⁹ Defined as “those activities conducted in process units or at laboratory bench-scale settings whose purpose is to conduct research and development for new processes, technologies, or products and whose purpose is not for the manufacture of products for commercial sale, except in a *de minimis* manner.” 40 C.F.R. § 98.6.
- ²⁰ See <http://www.epa.gov/climatechange/emissions/GHG-calculator/index.html>.
- ²¹ 40 C.F.R. § 98.2(i).
- ²² 40 C.F.R. § 98.2(i)(1). In this case, the owner/operator must keep records necessary to demonstrate sub-threshold emissions for each of the five consecutive years, for a period of three years beyond the year in which reporting was discontinued. This effectively extends the three-year record retention period otherwise mandated by the Rule.
- ²³ 40 C.F.R. § 98.2(i)(2).
- ²⁴ 40 C.F.R. § 98.2(i)(3).
- ²⁵ 40 C.F.R. §§ 98.2(i)(1) and (2).
- ²⁶ Seventeen states currently have or are developing GHG reporting rules, including California, Colorado, Connecticut, Delaware, Hawaii, Iowa, Maine, Maryland, Massachusetts, New Jersey, New Mexico, North Carolina, Oregon, Virginia, Washington, West Virginia and Wisconsin. A summary of existing federal, state and regional emission reporting programs appears in the proposed GHG reporting rule, 74 Fed. Reg. 16457 (Apr. 10, 2009).
- ²⁷ See 40 C.F.R. § 98.3(e) & Subparts A through PP.
- ²⁸ 40 C.F.R. § 98.33.
- ²⁹ 40 C.F.R. § 98.43.
- ³⁰ 40 C.F.R. § 98.3(d)(1).
- ³¹ 40 C.F.R. § 98.3(d)(2).
- ³² 40 C.F.R. § 98.3(c)(5).
- ³³ 40 C.F.R. § 98.4(d).
- ³⁴ 40 C.F.R. § 98.3(f).
- ³⁵ 40 C.F.R. § 98.3(g). Note, in response to public comments on the proposed rule, EPA reduced the record retention period from five years to three years, which is consistent with recordkeeping requirements under the federal Acid Rain Program.
- ³⁶ *Id.*
- ³⁷ 40 C.F.R. § 98.8.
- ³⁸ *Id.*
- ³⁹ 40 C.F.R. § 98.3(h)).
- ⁴⁰ EPA’s public information regulations contain a definition of “emission data” at 40 C.F.R. § 2.301.
- ⁴¹ Preamble at p. 148.

If you have any questions about this *Client Alert*, please contact one of the authors listed below or the Latham attorney with whom you normally consult:

Julia A. Hatcher
+1.202.637.2238
julia.hatcher@lw.com
Washington, D.C.

Matthew C. Brewer
+1.202.637.2304
matthew.brewer@lw.com
Washington, D.C.

Margrethe K. Kearney
+1.312.777.7040
margrethe.kearney@lw.com
Chicago

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Appendix A: Summary of Reporting Requirements for Each Source Category Covered Under the Rule

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
NON-THRESHOLD FACILITIES: Facilities with operations in one or more of the following source categories regardless of emission levels				
Electricity Generation	D	Electricity Generating Units (EGU) that are subject to the requirements of the Acid Rain Program and any other EGUs that are required to monitor and report to EPA CO ₂ emissions year-round according to 40 CFR part 75.	<ul style="list-style-type: none"> • Portable equipment • Emergency equipment • Emergency generators 	<ul style="list-style-type: none"> • CO₂, N₂O, CH₄.
Adipic Acid Production	E	All adipic acid production facilities that use oxidation to produce adipic acid.	None	<ul style="list-style-type: none"> • N₂O from process emissions. • CO₂, CH₄ and N₂O from stationary combustion units.
Aluminum Production	F	Facilities that manufacture primary aluminum using the Hall-Héroult manufacturing process. The primary aluminum manufacturing process comprises the following operations: (1) electrolysis in prebake and soderberg cells, (2) anode baking for prebake cells.	<ul style="list-style-type: none"> • Experimental cells or R&D process units. 	<ul style="list-style-type: none"> • CF₄ and C₂F₆ emissions from anode effects in all prebake and Soderberg electrolysis cells. • CO₂ emissions from anode consumption during electrolysis in all prebake and Soderberg electrolysis cells. • CO₂ emissions from on-site anode baking. • CO₂, CH₄ and N₂O from stationary combustion units.
Ammonia Manufacturing	G	Ammonia manufacturing processes in which ammonia is manufactured: a) from a fossil-based feedstock produced via steam reforming of a hydrocarbon; or b) through the gasification of solid and liquid raw material.	None	<ul style="list-style-type: none"> • CO₂ process emissions from steam reforming of a hydrocarbon or the gasification of solid and liquid raw material. • CO₂, CH₄ and N₂O from stationary combustion units. • CO₂ emissions collected and transferred off site under subpart PP (suppliers of CO₂).
Cement Production	H	Each kiln and each in-line kiln/raw mill at any portland cement manufacturing facility including alkali bypasses, and includes kilns and in-line kiln/raw mills that burn hazardous waste.	None	<ul style="list-style-type: none"> • CO₂ process emissions from calcination in each kiln. • CO₂ combustion emissions from each kiln. • CH₄ and N₂O combustion emissions from each kiln. • CO₂, CH₄ and N₂O from

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
				stationary combustion units other than kilns.
HCFC-22 Production; HFC-23 Destruction Processes	O	<p>HCFC-22 production process and HFC-23 destruction processes. An HCFC-22 production process produces HCFC-22 (chlorodifluoromethane, or CHC1F2) from chloroform and hydrogen fluoride.</p> <p>An HFC-23 destruction process is any process in which HFC-23 destruction process may or may not be co-located with an HCFC-22 production process at the same facility.</p>	None	<ul style="list-style-type: none"> • CO₂, CH₄ and N₂O from stationary combustion units. • HFC-23 emissions from HCFC-22 production processes and HFC-23 destruction processes.
Lime Manufacturing	S	<p>Lime manufacturing plants (LMPs) engage in the manufacture of a lime product (e.g., calcium oxide, high-calcium quicklime, calcium hydroxide, hydrated lime, dolomitic quicklime, dolomitic hydrate or other products) by calcination of limestone, dolomite, shells or other cacareous substances as defined in 40 CFR 63.7081(a)(1).</p> <p>The lime manufacturing source category consists of marketed and non-marketed lime manufacturing facilities.</p>	<ul style="list-style-type: none"> • Includes all LMPs unless the LMP is located at a kraft pulp mill, soda pulp mill, sulfite pulp mill or only processes sludge containing calcium carbonate from water softening processes. • Lime kilns at pulp and paper manufacturing facilities must report emissions under subpart AA of this part (Pulp and Paper Manufacturing). 	<ul style="list-style-type: none"> • CO₂ process emissions from lime kilns. • CO₂ emissions from fuel combustion at lime kilns. • N₂O and CH₄ emissions from fuel combustion at each lime kiln (report under 40 CFR part 98, subpart C (General Stationary Fuel Combustion Sources)). • CO₂, N₂O, and CH₄ emissions from each stationary fuel combustion unit other than lime kilns. • CO₂ collected and transferred off site under 40 CFR part 98, following the requirements of subpart PP of this part (Suppliers of Carbon Dioxide (CO₂)).
Nitric Acid Production	V	Uses one or more trains to produce weak nitric acid (30 to 70 percent in strength). A nitric acid train produces weak nitric acid through the catalytic oxidation of ammonia.	None	<ul style="list-style-type: none"> • N₂O process emissions from each nitric acid production train as required by this subpart. • CO₂, N₂O, and CH₄ emissions from each stationary fuel combustion unit.
Petrochemical Production	X	Consists of all processes that produce acrylonitrile, carbon black, ethylene, ethylene dichloride, ethylene oxide, or	<ul style="list-style-type: none"> • Processes not part of source category: • A process that produces a petrochemical as a 	<ul style="list-style-type: none"> • CO₂ CH₄, and N₂O process emissions from each petrochemical process unit. Process emissions include

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
		<p>methanol (exceptions specified). Includes processes that produce the petrochemical as an intermediate in the onsite production of other chemicals as well as processes that produce the petrochemical as an end product for sale or shipment offsite.</p> <p>A facility that makes methanol, hydrogen, and/or ammonia from synthesis gas is part of the petrochemical source category if the annual mass of methanol produced exceeds the individual annual mass production levels of both hydrogen recovered as product and ammonia. The facility is part of subpart P of this part (Hydrogen Production) if the annual mass of hydrogen recovered as product exceeds the individual annual mass production levels of both methanol and ammonia. The facility is part of subpart G (Ammonia Manufacturing) if the annual mass of ammonia produced exceeds the individual annual mass production levels of both hydrogen recovered as product and methanol.</p>	<p>byproduct;</p> <ul style="list-style-type: none"> • A direct chlorination process that is operated independently of an oxychlorination process to produce ethylene dichloride; • A process that produces bone black; and • A process that produces a petrochemical from biobased feedstock. 	<p>CO₂ generated by reaction in the process and by combustion of process off-gas in stationary combustion units and flares.</p> <ul style="list-style-type: none"> • If facility complies with §98.243(b) or (d), report under this subpart the calculated CO₂, CH₄ and N₂O emissions for each stationary combustion source and flare that burns any amount of petrochemical process off-gas. • If facility complies with §98.243(c), report under this subpart the calculated CO₂ emissions for each petrochemical process unit. • CO₂, CH₄, and N₂O combustion emissions from stationary combustion units and flares. • If facility complies with §98.243(b) or (d), report these emissions from stationary combustion units that are associated with petrochemical process units and burn only supplemental fuel under subpart C of this part (General Stationary Fuel Combustion Sources). • If facility complies with §98.243(c), report CO₂, CH₄ and N₂O combustion emissions under subpart C of this part (General Stationary Fuel Combustion Sources) by following the requirements of subpart C only for the combustion of supplemental fuel. Determine the applicable Tier in subpart C of this part (General Stationary Fuel Combustion Sources) based on the maximum rated heat input capacity of the stationary combustion source.

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
				<ul style="list-style-type: none"> Report the mass of CO₂ captured under subpart PP of this part (Suppliers of Carbon Dioxide (CO₂)).
Petroleum Refineries	Y	<p>Any facility engaged in producing gasoline, gasoline blending stocks, naphtha, kerosene, distillate fuel oils, residual fuel oils, lubricants or asphalt (bitumen) through distillation of petroleum or through redistillation, cracking or reforming of unfinished petroleum derivatives, except as provided in paragraph (b) of this section.</p> <p>Consists of the following sources at petroleum refineries: catalytic cracking units; fluid coking units; delayed coking units; catalytic reforming units; coke calcining units; asphalt blowing operations; blowdown systems; storage tanks; process equipment components (compressors, pumps, valves, pressure relief devices, flanges, and connectors) in gas service; marine vessel, barge, tanker truck and similar loading operations; flares; sulfur recovery plants; and non-merchant hydrogen plants (<i>i.e.</i>, hydrogen plants that are owned or under the direct control of the refinery owner and operator).</p>	<ul style="list-style-type: none"> Facilities that distill only pipeline transmix (off-spec material created when different specification products mix during pipeline transportation) are not petroleum refineries, regardless of the products produced. 	<ul style="list-style-type: none"> CO₂, CH₄ and N₂O combustion emissions from stationary combustion units and from each flare. CO₂, CH₄ and N₂O coke burn-off emissions from each catalytic cracking unit, fluid coking unit and catalytic reforming unit under this subpart. CO₂ emissions from sour gas sent off site for sulfur recovery operations under this subpart. CO₂ process emissions from each on-site sulfur recovery plant under this subpart. CO₂, CH₄ and N₂O emissions from each coke calcining unit under this subpart. CO₂ and CH₄ emissions from asphalt blowing operations under this subpart. CH₄ emissions from equipment leaks, storage tanks, loading operations, delayed coking units, and uncontrolled blowdown systems under this subpart. CO₂, CH₄ and N₂O emissions from each process vent not specifically included in paragraphs (a) through (g) of this section under this subpart. CO₂ and CH₄ emissions from non-merchant hydrogen production under this subpart (subpart P).
Phosphoric Acid Production	Z	Facilities with a wet-process phosphoric acid process line used to produce phosphoric acid. A wet-process	None	<ul style="list-style-type: none"> CO₂ process emissions from each wet-process phosphoric acid process line.

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
		phosphoric acid process line is the production unit or units identified by an individual identification number in an operating permit and/or any process unit or group of process units at a facility reacting phosphate rock from a common supply source with acid.		<ul style="list-style-type: none"> • CO₂, N₂O and CH₄ emissions from each stationary fuel combustion unit.
Silicon Carbide Production	BB	Any process that produces silicon carbide for abrasive purposes.	None	<ul style="list-style-type: none"> • CO₂ and CH₄ process emissions from all silicon carbide process units or furnaces combined. • CO₂, CH₄ and N₂O emissions from each stationary combustion unit.
Soda Ash Production	CC	<p>A soda ash manufacturing facility is any facility with a manufacturing line that produces soda ash by one of the following methods: Calcining trona; Calcining sodium sesquicarbonate; Using a liquid alkaline feedstock process that directly produces CO₂.</p> <p>In the context of the soda ash manufacturing sector, “calcining” means the thermal/chemical conversion of the bicarbonate fraction of the feedstock to sodium carbonate.</p>		<ul style="list-style-type: none"> • CO₂ process emissions from each soda ash manufacturing line combined. • CO₂ combustion emissions from each soda ash manufacturing line. • CH₄ and N₂O combustion emissions from each soda ash manufacturing line. • CO₂, CH₄, and N₂O emissions from each stationary combustion unit other than soda ash manufacturing lines.
Titanium Dioxide Production	EE	Facilities that use the chloride process to produce titanium dioxide.		<ul style="list-style-type: none"> • CO₂ process emissions from each chloride process line. • CO₂, CH₄ and N₂O emissions from each stationary combustion unit.
SINGLE SOURCE THRESHOLD FACILITIES: Municipal Solid Waste Facilities and Livestock Facilities at or above 25,000 tpy CO₂e				
Municipal Solid Waste Landfills	HH	<p>Applies to municipal solid waste (MSW) landfills that accepted waste on or after January 1, 1980 that generate CH₄ in amounts equivalent to 25,000 metric tons CO₂e ore more per year.</p> <p>Consists of the following</p>	<ul style="list-style-type: none"> • Does not include hazardous waste landfills, construction and demolition landfills, or industrial landfills. 	<ul style="list-style-type: none"> • CH₄ generation and CH₄ emissions from landfills. • CH₄ destruction resulting from landfill gas collection and combustion systems. • CO₂, CH₄ and N₂O from each stationary combustion unit.

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
		sources at MSW landfills: landfills, landfill gas collection systems and landfill gas destruction devices (including flares).		
Manure Management Systems	JJ	<p>Livestock facilities with manure management systems that emit 25,000 metric tons CO₂e or more per year.</p> <p>A manure management system (MMS) is a system that stabilizes and/or stores livestock manure, litter, or manure wastewater in one or more of the following system components: uncovered anaerobic lagoons, liquid/slurry systems with and without crust covers (including but not limited to ponds and tanks), storage pits, digesters, solid manure storage, dry lots (including feedlots), high-rise houses for poultry production (poultry without litter), poultry production with litter, deep bedding systems for cattle and swine, manure composting, and aerobic treatment.</p>	<ul style="list-style-type: none"> Facilities need not report if they are below a certain average annual animal population. Does not include system components at a livestock facility that are unrelated to the stabilization and/or storage of manure such as daily spread or pasture/range/paddock systems or land application activities or any method of manure utilization that is not listed in §98.360 (b). Does not include manure management activities located off-site from a livestock facility or off-site manure composting operations. 	<ul style="list-style-type: none"> CH₄ and N₂O emissions for the following MMS components at the facility: <ol style="list-style-type: none"> Uncovered anaerobic lagoons. Liquid/slurry systems (with and without crust covers, and including but not limited to ponds and tanks). Storage pits. Digesters, including covered anaerobic lagoons. Solid manure storage. Dry lots, including feedlots. High-rise houses for poultry production (poultry without litter) Poultry production with litter. Deep bedding systems for cattle and swine. Manure composting. Aerobic treatment. A livestock facility that is subject to this rule only because of emissions from manure management system components is not required to report emissions from subparts C through PP (other than subpart JJ) of this part. A livestock facility that is subject to this part because of emissions from source categories described in subparts C through PP of this part is not required to report emissions under subpart JJ of this part unless emissions from manure management systems are 25,000 metric tons CO₂e per

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report year or more.
COMBINED SOURCE THRESHOLD FACILITIES: Facilities at or above 25,000 tpy CO₂e from Stationary Fuel Combustion Units combined with any of the Following Source Categories:				
General Stationary Fuel Combustion Sources	C	Devices that combust solid, liquid or gaseous fuel, generally for the purposes of producing electricity, generating steam, or providing useful heat or energy for industrial, commercial, or institutional use, or reducing the volume of waste by removing combustible matter. Stationary fuel combustion sources include, but are not limited to, boilers, simple and combined-cycle combustion turbines, engines, incinerators, and process heaters.	<ul style="list-style-type: none"> • Portable equipment. • Emergency generators and emergency equipment. • Irrigation pumps at agricultural operations. • Flares, unless otherwise required by provisions of another subpart of 40 CFR part 98 to use methodologies in this subpart. • Electricity generating units that are subject to subpart D of this part. • For a unit that combusts hazardous waste (as defined in 40 CFR 261.3), reporting of GHG emissions is not required unless either of the following conditions apply: <ul style="list-style-type: none"> (1) Continuous emission monitors (CEMS) are used to quantify CO₂ mass emissions; or (2) Any fuel listed in Table C-1 of this subpart is also combusted in the unit. (In this case, report GHG emissions from combustion of all fuels listed in Table C-1 of this subpart.) 	<ul style="list-style-type: none"> • CO₂, CH₄, and N₂O mass emissions from each stationary fuel combustion unit. • Note: there are additional reporting requirements for combustion sources that use biomass fuels, either alone or in combination with fossil fuels. • Note: there are separate reporting requirements for facilities and individual combustion units.
Miscellaneous Uses of Carbonate	U	Includes any equipment that uses the following carbonates in manufacturing processes that emit carbon dioxide: limestone, dolomite, ankerite, magnesite, siderite, rhodochrosite or sodium carbonate. Facilities are considered to emit CO ₂ if they consume at least 2,000 tons per year of carbonates heated	<ul style="list-style-type: none"> • Does not include equipment that uses carbonates or carbonate containing minerals that are consumed in the production of cement, glass, ferroalloys, iron and steel, lead, lime, phosphoric acid, pulp and paper, soda ash, sodium bicarbonate, sodium 	<ul style="list-style-type: none"> • CO₂ process emissions from all miscellaneous carbonate used at facility as specified in the subpart.

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
		to a temperature sufficient to allow the calcination reaction to occur.	hydroxide or zinc. <ul style="list-style-type: none"> Does not include carbonates used in sorbent technology used to control emissions from stationary fuel combustion equipment, which are reported under 40 CFR 98, subpart C (Stationary Fuel Combustion Sources). 	
Ferroalloy Production	K	Any facility that uses pyrometallurgical techniques to produce any of the following metals: ferrochromium, ferromanganese, ferromolybdenum, ferronickel, ferrosilicon, ferrotitanium, ferrotungsten, ferrovanadium, silicomanganese or silicon metal.		<ul style="list-style-type: none"> Process CO₂ emissions from each electric arc furnace used for the production of any ferroalloy. CO₂, CH₄ and N₂O from stationary combustion units.
Glass Production	N	Any facility that manufactures flat glass, container glass, pressed and blown glass, or woff fiberglass by melting a mixture of raw materials to produce molten glass and form the molten glass into sheets, containers, fibers or other shapes.	<ul style="list-style-type: none"> Glass melting furnace that is an experimental furnace or a R&D process unit. 	<ul style="list-style-type: none"> CO₂ process emissions from each continuous glass melting furnace. CO₂ combustion emissions from each continuous glass melting furnace. CH₄ and N₂O combustion emissions from each continuous glass melting furnace. Process CO₂ emissions from each electric arc furnace used for the production of any ferroalloy. CO₂, CH₄ and N₂O from stationary combustion units other than continuous glass melting furnaces.
Hydrogen Production	P	Facilities that produce hydrogen gas sold as a product to other entities. Comprises process units that produce hydrogen by reforming, gasification, oxidation, reaction or other transformations of feedstocks. Includes merchant hydrogen production facilities located within a petroleum refinery if	None	<ul style="list-style-type: none"> CO₂ process emissions from each hydrogen production process unit. CO₂, CH₄ and N₂O combustion emissions from each hydrogen production process unit. CO₂, CH₄ and N₂O from stationary combustion units other than hydrogen

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
		they are not owned by, or under the direct control of, the refinery owner and operator.		<p>production process units.</p> <ul style="list-style-type: none"> For CO₂ collected and transferred off site, follow the requirements of subpart PP.
Iron and Steel Production	Q	Facilities with any of the following processes: taconite iron ore processing, integrated iron and steel manufacturing, cokemaking not colocated with an integrated iron and steel manufacturing process and electric arc furnace (EAF) steelmaking not colocated with an integrated iron and steel manufacturing process. Integrated iron and steel manufacturing means the production of steel from iron ore or iron ore pellets. At a minimum, an integrated iron and steel manufacturing process has a basic oxygen furnace for refining molten iron into steel. Each cokemaking process and EAF process located at a facility with an integrated iron and steel manufacturing process is part of the integrated iron and steel manufacturing facility.	None	<ul style="list-style-type: none"> CO₂, CH₄ and N₂O from each stationary combustion unit except for flares. Stationary combustion units include, but are not limited to, by-product recovery coke oven battery combustion stacks, blast furnace stoves, boilers, process heaters, reheat furnaces, annealing furnaces, flame suppression, ladle reheaters and other miscellaneous combustion sources. CO₂ emissions from flares according to the procedures in §98.253(b)(1) of subpart Y (Petroleum Refineries) of this part except you must use the default CO₂ emission factors for coke oven gas and blast furnace gas from Table C-1 of subpart C in Equation Y-1 of subpart Y of this part. A facility must report CH₄ and N₂O emissions from flares according to the requirements in §98.33(c)(2) using the emission factors for coke oven gas and blast furnace gas in Table C-2 of subpart C of this part. CO₂ emissions from each taconite indurating furnace; basic oxygen furnace; non-recovery coke oven battery combustion stack; coke pushing process; sinter process; EAF; argon-oxygen decarburization vessel; and direct reduction furnace by following the procedures in this subpart.
Lead Production	R	Primary lead smelters and secondary lead smelters. A primary lead smelter is a	None	<ul style="list-style-type: none"> Process CO₂ emissions from each smelting furnace used for lead production.

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
		facility engaged in the production of lead metal from lead sulfide ore concentrates through the use of pyrometallurgical techniques. A secondary lead smelter is a facility at which lead-bearing scrap materials (including, but not limited to, lead-acid batteries) are recycled by smelting into elemental lead or lead alloys.		<ul style="list-style-type: none"> • CO₂ combustion emissions from each smelting furnace used for lead production. • CH₄ and N₂O combustion emissions from each smelting furnace used for lead production. • CO₂, CH₄ and N₂O emissions from each stationary combustion unit other than smelting furnaces used for lead production.
Pulp and Paper Manufacturing	AA	<p>Facilities that produce market pulp (<i>i.e.</i>, stand-alone pulp facilities), manufacture pulp and paper (<i>i.e.</i>, integrated facilities), produce paper products from purchased pulp, produce secondary fiber from recycled paper, convert paper into paperboard products (<i>e.g.</i>, containers), or operate coating and laminating processes.</p> <p>Emission units for which GHG emissions must be reported:</p> <p>(1) Chemical recovery furnaces at kraft and soda mills (including recovery furnaces that burn spent pulping liquor produced by both the kraft and semichemical process).</p> <p>(2) Chemical recovery combustion units at sulfite facilities.</p> <p>(3) Chemical recovery combustion units at stand-alone semichemical facilities.</p> <p>(4) Pulp mill lime kilns at kraft and soda facilities.</p> <p>(5) Systems for adding makeup chemicals (CaCO₃, Na₂CO₃) in the chemical recovery areas of chemical pulp mills.</p>	None	<ul style="list-style-type: none"> • CO₂, biogenic CO₂, CH₄ and N₂O emissions from each kraft or soda chemical recovery furnace. • CO₂, biogenic CO₂, CH₄ and N₂O emissions from each sulfite chemical recovery combustion unit. • CO₂, biogenic CO₂, CH₄ and N₂O emissions from each stand-alone semichemical chemical recovery combustion unit. • CO₂, biogenic CO₂, CH₄ and N₂O emissions from each kraft or soda pulp mill lime kiln. • CO₂ emissions from addition of makeup chemicals (CaCO₃, Na₂CO₃) in the chemical recovery areas of chemical pulp mills. • CO₂, CH₄ and N₂O combustion emissions from each stationary combustion unit.
Zinc Production	GG	Zinc smelters and secondary zinc recycling facilities.	None	<ul style="list-style-type: none"> • CO₂ process emissions from each Waelz kiln and electrothermic furnace used for zinc production.

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
				<ul style="list-style-type: none"> CO₂, CH₄ and N₂O combustion emissions from each Waelz kiln.
COMBUSTION SOURCES AT FACILITIES				
General Stationary Fuel Combustion Sources	C	Facilities at or above 25,000 tpy CO ₂ e in combined Emissions from all stationary fuel combustion and for which the aggregate maximum rate heat input capacity of the stationary fuel combustion units at the facility is 30 million Btu/hr or greater. § 98.2(a)(3).	<ul style="list-style-type: none"> See entry for “General Stationary Fuel Combustion Sources” above. 	<ul style="list-style-type: none"> See entry for “General Stationary Fuel Combustion Sources” above.
SUPPLIERS OF FUELS AND INDUSTRIAL GASES				
Coal to Liquids Suppliers	LL	Producers, importers, and exporters of products listed in Table MM-1 of subpart MM that are coal-based (coal-to-liquid products). A producer is the owner or operator of a coal-to-liquids facility. A coal-to-liquids facility is any facility engaged in converting coal into liquid products using a process involving conversion of coal into gas and then into liquids (e.g., Fischer-Tropsch) or conversion of coal directly into liquids (i.e., direct liquefaction).		<ul style="list-style-type: none"> CO₂ emissions that would result from the complete combustion or oxidation of fossil-fuel products (besides coal or crude oil) that you produce, use as feedstock, import, or export during the calendar year. Additionally, producers must report CO₂ emissions that would result from the complete combustion or oxidation of any biomass co-processed with fossil fuel-based feedstocks.
Petroleum Product Suppliers	MM	This source category consists of petroleum refineries and importers and exporters of petroleum products and natural gas liquids as listed in Table MM-1. A petroleum refinery for the purpose of this subpart is any facility engaged in producing petroleum products through the distillation of crude oil. A refiner is the owner or operator of a petroleum refinery. Importer has the same meaning given in §98.6 and includes any entity that imports petroleum products or natural gas liquids as listed in Table MM-1 of this subpart. Any blender or refiner of refined or semi-refined		<ul style="list-style-type: none"> CO₂ emissions that would result from the complete combustion or oxidation of each petroleum product and natural gas liquid produced, used as feedstock, imported, or exported during the calendar year. Additionally, refiners must report CO₂ emissions that would result from the complete combustion or oxidation of any biomass co-processed with petroleum feedstocks.

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
		<p>petroleum products shall be considered an importer if it otherwise satisfies the aforementioned definition. Exporter has the same meaning given in §98.6 and includes any entity that exports petroleum products or natural gas liquids as listed in Table MM-1 of this subpart. Any blender or refiner of refined or semi-refined petroleum products shall be considered an exporter if it otherwise satisfies the aforementioned definition.</p>		
<p>Natural Gas and Natural Gas Liquids Suppliers</p>	<p>NN</p>	<p>Natural gas liquids fractionators and local natural gas distribution companies. Natural gas liquids fractionators are installations that fractionate natural gas liquids (NGLs) into their constituent liquid products (ethane, propane, normal butane, isobutane or pentanes plus) for supply to downstream facilities. Local Distribution Companies (LDCs) are companies that own or operate distribution pipelines, not interstate pipelines or intrastate pipelines, that physically deliver natural gas to end users and that are regulated as separate operating companies by state public utility commissions or that operate as independent municipally owned distribution systems.</p>	<ul style="list-style-type: none"> • Does not consist of the following facilities: • (1) Field gathering and boosting stations. • (2) Natural gas processing plants that separate NGLs from natural gas and produce bulk or y-grade NGLs but do not fractionate these NGLs into their constituent products. • (3) Facilities that meet the definition of refineries and report under subpart MM of this part. • (4) Facilities that meet the definition of petrochemical plants and report under subpart X of this part. 	<p>NGL fractionators must report the CO₂ emissions that would result from the complete combustion or oxidation of the annual quantity of ethane, propane, normal butane, isobutane, and pentanes plus that is produced and sold or delivered to others. LDCs must report the CO₂ emissions that would result from the complete combustion or oxidation of the annual volumes of natural gas provided to end-users on their distribution systems.</p>
<p>Industrial Greenhouse Gas Suppliers</p>	<p>OO</p>	<p>Any facility that produces a fluorinated GHG or nitrous oxide, any bulk importer of fluorinated GHGs or nitrous oxide, and any bulk exporter of fluorinated GHGs or nitrous oxide. To produce a fluorinated GHG means to manufacture a fluorinated</p>		<p>GHG emissions that would result from the release of the nitrous oxide and each fluorinated GHG that you produce, import, export, transform, or destroy during the calendar year.</p>

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
		<p>GHG from any raw material or feedstock chemical.</p> <p>Producing a fluorinated GHG includes the manufacture of a fluorinated GHG for use in a process that will result in its transformation either at or outside of the production facility. Producing a fluorinated GHG also includes the creation of a fluorinated GHG (with the exception of HFC-23) that is captured and shipped off site for any reason, including destruction. Producing a fluorinated GHG does not include the reuse or recycling of a fluorinated GHG, the creation of HFC-23 during the production of HCFC-22, or the creation of by-products that are released or destroyed at the production facility. To produce nitrous oxide means to produce nitrous oxide by thermally decomposing ammonium nitrate (NH₄NO₃). Producing nitrous oxide does not include the reuse or recycling of nitrous oxide or the creation of by-products that are released or destroyed at the production facility.</p>		
Carbon Dioxide Suppliers	PP	<p>Consists of the following:</p> <p>(1) Facilities with production process units that capture a CO₂ stream for purposes of supplying CO₂ for commercial applications or that capture and maintain custody of a CO₂ stream in order to sequester or otherwise inject it underground. Capture refers to the initial separation and removal of CO₂ from a manufacturing process or any other process.</p> <p>(2) Facilities with CO₂ production wells that extract or produce a CO₂ stream for purposes of supplying CO₂ for commercial applications or</p>	<ul style="list-style-type: none"> • Does not cover: • (1) Storage of CO₂ above ground or in geologic formations. • (2) Use of CO₂ in enhanced oil and gas recovery. • (3) Transportation or distribution of CO₂. • (4) Purification, compression, or processing of CO₂. • (5) On-site use of CO₂ captured on site. • Does not include CO₂ imported or exported in equipment, such as fire 	<p>Mass of CO₂ captured from each production process unit.</p> <p>Mass of CO₂ extracted from each CO₂ production wells.</p> <p>Mass of CO₂ imported.</p> <p>Mass of CO₂ exported.</p>

Source Category	Sub-part	“Source Category” Definition	Excluded from “Source Category” Definition	GHGs Required to Report
		that extract and maintain custody of a CO ₂ stream in order to sequester or otherwise inject it underground. (3) Importers or exporters of bulk CO ₂ .	extinguishers.	
Manufacturers of Heavy-Duty and Off-Road Engines and Vehicles				
Not a source category created by the Rule. Modifies reporting requirements of 40 C.F.R. Parts 86, 87, 87, 88, 90, 94, 1033, 1039, 1042, 1045, 1048, 1051, 1054, and 1065.	A, B,E	<ul style="list-style-type: none"> • Domestic manufacturers and importers of engines used in mobile sources outside the light-duty sector. • Covered mobile source categories include: • Highway Heavy Duty Vehicles and Engines • Nonroad Diesel Engines • Marine Diesel (non-C3) Engines • C3 Marine Engines • Locomotive Engines • Small, Large and Marine Spark-Ignition Engines • Snowmobiles • Highway motorcycles • Off Highway motorcycles/ATVs • Aircraft engines (turbofan and turbojet engines in production in 2011 with a rated output greater than 26.7 kN) 	<ul style="list-style-type: none"> • Manufacturers of light-duty vehicles, light-duty trucks, and medium-duty passenger vehicles. • Manufacturers meeting the definition of “small business” or “small volume” under EPA’s existing mobile source emissions regulations. (Unique definitions of “small” are provided in federal regulations for manufacturers of different mobile source categories). 	<ul style="list-style-type: none"> • CO₂, N₂O, CH₄ • All mobile categories must report CO₂ beginning with model year 2011. • Aircraft and C3 marine engines do not need to report N₂O or CH₄ emissions. • All mobile categories except C3 marine and aircraft engines must report N₂O and CH₄ emissions beginning with model year 2012.

Appendix B: Source Categories Deferred in the Final Rule and Rationale for Deferral

Deferred Source Categories	Rationale for Excluding From Final Rule	Reference
Electronics manufacturing	EPA is still analyzing and evaluating data collection procedures and methodologies in response to the large number of detailed comments stating that manufacturers do not collect the data necessary for an IPCC Tier 3 approach to reporting and that gearing up to collect data at that level of detail would require unreasonably large efforts and capital costs with little added benefit.	Preamble § III.I
Ethanol production	Source category not finalized because proposed sources to be reported were: (1) stationary fuel combustion; (2) onsite landfills; and (3) on-site wastewater treatment. Industrial landfills and wastewater treatment source categories were deferred (see below). Ethanol production facilities still need to report if stationary fuel consumption emissions exceed 25,000 metric tons CO ₂ e per year.	Preamble § III.J
Fluorinated GHG production	EPA is still analyzing and evaluating data collection procedures and methodologies in response to the large number of detailed comments that installation of Coriolis flowmeters in multiple streams would require significant expense and would still likely be inaccurate—especially for batch processes.	Preamble § III.L
Food processing	Source category not finalized because proposed sources to be reported were: (1) stationary fuel combustion; (2) onsite landfills; and (3) on-site wastewater treatment. Industrial landfills and wastewater treatment source categories were deferred (see below). Food processing facilities still need to report if stationary fuel consumption emissions exceed 25,000 metric tons CO ₂ e per year.	Preamble § III.M
Industrial landfills (but not MSW)	Source category applies only to Municipal Solid Waste (MSW) and not to hazardous waste, construction or demolition, or industrial landfills. Appropriateness, coverage, and methodology for addressing emissions from landfills are still unresolved, as are which types of industrial landfills should be subject to the rule.	Preamble § III.HH; 40 CFR 98.340(b)
Magnesium production	Emissions are sufficiently covered by reporting requirements under 40 C.F.R. 98 (OO) for Industrial Gas Supply. Information on production, imports, and exports of SF ₆ provide an order-of-magnitude check on SF ₆ consumption.	Preamble § III.T
Oil and natural gas systems	EPA is not finalizing fugitive and vented methane reporting requirements under this source category due to significant industry burden and need of standards for leak detection and measurement equipment.	Preamble § III.W
SF₆ from electrical equipment	EPA is still analyzing and evaluating data collection procedures and methodologies in response to the large number of detailed comments on potential industry burden.	Preamble § III.DD
Underground coal mines	EPA is performing additional analysis and considering alternatives to the monitoring requirements based on public comments.	Preamble § III.FF

Deferred Source Categories	Rationale for Excluding From Final Rule	Reference
Wastewater treatment	EPA is still considering requirements for location of flow measurement meters, frequency of flow and chemical oxygen demand (COD) measurements, potential use of alternate parameters, and acceptable methods for estimating missing data. Centralized domestic wastewater treatment plants continue to be excluded as in the original proposed rule.	Preamble § III.II
Suppliers of coal	EPA is still performing additional analysis and considering alternatives based on challenges to legal authority for EPA to require coal suppliers to report CO ₂ emissions, potential duplication of reporting by coal users, potential exceptions for mine-mouth power plants, alternative coal weighing and sampling standards, and potential industry burden of installing new testing and sampling equipment.	Preamble § III.KK