

RULE 517 PERMITTING REQUIREMENTS FOR STATIONARY SOURCES EMITTING GREENHOUSE GASES

Adopted 2-10-11

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100 GENERAL

101 PURPOSE: The purpose of this rule is to: (1) ensure that any stationary source that has the potential to emit greenhouse gases, as defined in this rule, above applicable thresholds complies with the requirements of Rule 507, FEDERAL OPERATING PERMIT PROGRAM, Rule 511, POTENTIAL TO EMIT, and Rule 512, REQUEST FOR SYNTHETIC MINOR SOURCE STATUS, as applicable; and (2) establish federally enforceable limits on potential to emit greenhouse gases for stationary sources that elect to comply with such limits in lieu of obtaining a part 70 permit that is otherwise required.

102 APPLICABILITY: Except as provided in sections 103, 104, and 105, this rule shall apply to any stationary source which has the potential to emit greenhouse gases.

103 EXEMPTION, STATIONARY SOURCE WITH POTENTIAL TO EMIT GREENHOUSE GASES BELOW SPECIFIED THRESHOLDS: The standards in Section 300 shall not apply to any stationary source which has a maximum potential to emit greenhouse gases below the Major Source of GHG Emission threshold(s) in section 209, including sources with their potential to emit limited by conditions in an operating permit if the conditions are federally, or legally and practically enforceable.

104 EXEMPTION FROM RECORDKEEPING AND REPORTING: The following sources shall not be required to comply with the recordkeeping and reporting provisions in sections 401, 402, and 500:

104.1 A stationary source which emits, or will emit, less than or equal to 5,000 tons per year of CO₂e, in every 12-month period. Within 30 days of a written request by the District or the U.S. EPA, the owner or operator of such stationary source shall demonstrate that the stationary source's greenhouse gas emissions are less than or equal to 5,000 tons per year of CO₂e, in every 12-month period in the preceding 5 years.

104.2 Any stationary source that would otherwise be subject to the provisions of section 301.2 or 301.3 and which meets both of the following conditions:

104.2.1 The owner or operator has notified the District at least 30 days prior to any violation that they will submit an application for a Part 70 permit, or otherwise obtain federally-enforceable permit limits, and

104.2.2 A complete Part 70 permit application is received by the District, or the permit action to otherwise obtain federally-enforceable limits is completed, within 12 months of the date of notification.

104.3 Any stationary source that has applied for a Part 70 permit in a timely manner and in conformance with Rule 507, FEDERAL OPERATING PERMIT PROGRAM and is awaiting final action by the District and U.S. EPA.

104.4 Any stationary source required to obtain a Part 70 permit under Rule 507, FEDERAL OPERATING PERMIT PROGRAM for any reason other than being a major source.

104.5 Any stationary source with a valid Part 70 permit.

Notwithstanding subsections 104.2 and 104.4 above, nothing in this section shall prevent any stationary source which has had a Part 70 permit from qualifying to comply with this rule in the future in lieu of maintaining an application for a Part 70 permit or upon

rescission of a Part 70 permit if the owner or operator demonstrates that the stationary source is in compliance with the provisions of section 301.2 or 301.3.

- 105 EXEMPTION FROM PROCESS STATEMENT:** For the purpose of determining compliance with this rule, the requirement in section 402.1 to submit a process statement shall not apply to stationary sources which emit less than 25,000 tons per year of CO₂e, in every 12-month period in the preceding 5 year period.
- 106 OTHERWISE APPLICABLE REQUIREMENTS:** This rule shall not relieve any stationary source from complying with requirements pertaining to any otherwise applicable preconstruction permit, or to replace a condition or term of any preconstruction permit, or any provision of a preconstruction permitting program. This does not preclude issuance of any preconstruction permit with conditions or terms necessary to ensure compliance with this rule.
- 200 DEFINITIONS:** Unless otherwise defined below, the terms used in this rule are as defined Rule 507, FEDERAL OPERATING PERMIT PROGRAM.
- 201 TWELVE-MONTH PERIOD:** A period of twelve consecutive months determined on a rolling basis with a new 12-month period beginning on the first day of each calendar month.
- 202 ACTUAL EMISSIONS:** The emissions of the sum of greenhouse gases, expressed as CO₂e, from a stationary source for every 12-month period. Valid continuous emission monitoring data or source test data shall be preferentially used to determine actual emissions. In the absence of valid continuous emissions monitoring data or source test data, the basis for determining actual emissions shall be: throughputs of process materials; throughputs of materials stored; usage of materials; data provided in manufacturer's product specifications, material content reports or laboratory analyses; other information required by this rule and applicable District, State and Federal regulations; or information requested in writing by the District. All calculations of actual emissions shall use methods, including emission factors and assumptions, specified or approved by U.S. EPA; where such methods are not available, the APCO may allow methods approved by the California Air Resources Board (CARB) or other District-approved methods, including emission factors and assumptions.
- 203 ALTERNATIVE OPERATIONAL LIMIT:** A limit on a measurable parameter, such as hours of operation, throughput of materials, use of materials, or quantity of product, as specified in Section 500, Alternative Operational Limit and Requirements.
- 204 CO₂ EQUIVALENT EMISSIONS (CO₂e):** For the purposes of this rule, the sum of the adjusted emissions of each of the six individual greenhouse gases as defined in Section 208, where the adjusted emissions for each individual greenhouse gas are equal to the mass emissions of that gas multiplied by the global warming potential of that gas, as listed in Appendix A.
- 205 EMISSION UNIT:** Any article, machine, equipment, operation, contrivance or related groupings of such that may produce and/or emit any greenhouse gas.
- 206 FEDERAL CLEAN AIR ACT:** The federal Clean Air Act (CAA) as amended in 1990 (42 U.S.C. section 7401 et seq.) and its implementing regulations.
- 207 GLOBAL WARMING POTENTIAL (GWP):** The relative capacity of an individual greenhouse gas to cause a warming effect in the earth's atmosphere as compared to the capacity of CO₂ to cause such warming effect; for the purposes of this rule, the global warming potential of a greenhouse gas shall be as listed in Appendix A.

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- 208 GREENHOUSE GASES (GHGs):** A gas that has the capacity to create a warming effect in the earth's atmosphere; for the purposes of this rule these include: carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).
- 209 MAJOR SOURCE OF GHG EMISSIONS:** On or after July 1, 2011, a stationary source that emits or has the potential to emit greater than or equal to 100,000 tons per year of CO₂e, provided that the mass emissions of all GHGs emitted, without consideration of GWP, are equal to or greater than 100 tons per year.
- 210 PART 70 PERMIT:** An operating permit issued to a stationary source pursuant to an interim, partial or final Title V program approved by the U.S. EPA.
- 211 POTENTIAL TO EMIT:** The maximum capacity of a stationary source to emit a regulated air pollutant based on its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation is federally or legally and practically enforceable.
- 212 PROCESS STATEMENT:** An annual report on permitted emission units from an owner or operator of a stationary source certifying the following information, to the best of their knowledge: throughputs of process materials; throughputs of materials stored; usage of materials; fuel usage; any available continuous emissions monitoring data; hours of operation; and any other information required by this rule or requested in writing by the District.

300 STANDARDS

- 301 REQUIREMENTS:** A stationary source subject to this rule shall comply with the provisions of section 301.1, section 301.2, or section 301.3, below.
- 301.1 A stationary source shall comply with the requirements of Rule 507, FEDERAL OPERATING PERMIT PROGRAM, and shall include in its operating permit emissions of GHGs and all applicable GHG requirements, if either of the following thresholds is met:
- 301.1.1 On or after January 2, 2011, the stationary source is otherwise required to obtain a Part 70 permit pursuant to the requirements of Rule 507; or
- 301.1.2 On or after July 1, 2011, the stationary source is otherwise required to obtain a Part 70 permit pursuant to the requirements of Rule 507, or is a "major source of GHG emissions".
- 301.2 A stationary source shall comply with the requirements of Rule 512 REQUEST FOR SYNTHETIC MINOR SOURCE STATUS, and shall include in its operating permit limitations on emissions of GHGs to ensure the source is not a "major source of GHG emissions" if either of section 301.1.1 or section 301.1.2 applies.
- 301.3 Unless the stationary source complies with the provisions of section 301.1.1 or 301.1.2, or the owner or operator has chosen to operate the stationary source under an alternative operational limit specified in section 501, no stationary source subject to this rule shall emit more than 50,000 tons of CO₂e, in any 12-month period.

Calculations and other methods to determine applicability of, and compliance with the provisions of Section 301 shall be as specified in Rule 507.

302 EVALUATION: The APCO shall evaluate a stationary source's compliance with the emission limitations in section 301.3, above as part of the District's annual permit renewal process required by Health & Safety Code section 42301(e). In performing the evaluation, the APCO shall consider any annual process statement submitted pursuant to Section 402, Reporting Requirements. In the absence of valid continuous emission monitoring data or source test data, actual and projected emissions shall be calculated using emissions factors approved by the U.S. EPA; where such factors are not available, the APCO may allow factors approved by CARB, or other District-approved factors.

303 PERMIT APPLICATIONS: An application for a permit for a stationary source pursuant to sections 301.1 or 301.2 shall include the following information, as applicable:

303.1 An application submitted pursuant to section 301.1 shall, in addition to the information specified in Rule 507, include sufficient information about greenhouse gas emissions from all emission units for the District to determine all applicable requirements.

303.2 An application submitted pursuant to section 301.2 shall, in addition to the information specified in Rule 512 include sufficient information about greenhouse gas emissions from all emission units for the District to determine all applicable requirements.

400 RECORDKEEPING AND REPORTING REQUIREMENTS

401 RECORDKEEPING REQUIREMENTS: The owner or operator of a stationary source subject to this rule shall comply with applicable recordkeeping requirements in this section. These recordkeeping requirements may be satisfied by submittal of records and reports as required by State and Federal laws pertaining to greenhouse gases.

However, for a stationary source operating under an alternative operational limit, the owner or operator shall instead comply with the applicable recordkeeping and reporting requirements specified in Section 500, Alternative Operational Limit and Requirements. The recordkeeping requirements of this rule shall not replace any recordkeeping requirement contained in an operating permit or in a District, State, or Federal rule or regulation.

401.1 Loss of Exemption: If a stationary source which was exempt from recordkeeping and reporting pursuant to Section 104.1 will have actual emissions which exceed 5,000 tons per year of CO₂e in any 12-month period, the source shall comply with the applicable provisions of sections 401,402, and 500.

401.2 Required Records: The owner or operator of a stationary source subject to this rule shall keep and maintain records for each permitted emission unit or groups of permitted emission units sufficient to determine actual emissions. Such information shall be summarized in a monthly log, maintained on site for five years, and be made available to District, CARB, or U.S. EPA staff upon request.

401.2.1 Combustion Emission Unit: The owner or operator of a stationary source subject to this rule that contains a combustion emission unit shall keep and maintain the following records:

a. Information on equipment type, make and model, maximum design process rate or maximum power input/output, minimum operating

temperature (for thermal oxidizers) and capacity, control device(s) type and description (if any) and all source test information; and

- b. A monthly log of hours of operation, fuel type, fuel usage, fuel heating value (for non-fossil fuels; in terms of BTU/lb or BTU/gal), percent sulfur for fuel oil and coal, and percent nitrogen for coal.

401.2.2 Emission Control Unit: The owner or operator of a stationary source subject to this rule that contains an emission control unit shall keep and maintain the following records:

- a. Information on equipment type and description, make and model, and emission units served by the control unit;
- b. Information on equipment design including where applicable: pollutant(s) controlled; control effectiveness; maximum design or rated capacity; inlet and outlet temperatures, and concentrations for each pollutant controlled; all parametric data necessary to verify operation, maintenance, and performance of the device; other design data as appropriate; all source test information; and
- c. A monthly log of hours of operation including notation of any control equipment breakdowns, upsets, repairs, maintenance and any other deviations from design parameters.

401.2.3 General Emission Unit: The owner or operator of a stationary source subject to this rule that contains an emission unit not included in subsections 401.2.1 or 401.2.2 above shall keep and maintain the following records:

- a. Information on the process and equipment including the following: equipment type, description, make and model; maximum design process rate or throughput; control device(s) type and description (if any);
- b. Any additional information requested in writing by the APCO;
- c. A monthly log of operating hours, each raw material used and its amount, each product produced and its production rate; and
- d. Purchase orders, invoices, and other documents to support information in the monthly log.

402 REPORTING REQUIREMENTS:

402.1 Process Statement: At the time of annual renewal of a permit to operate under Rule 501, GENERAL PERMIT REQUIREMENTS, each owner or operator of a stationary source subject to this rule shall submit to the District a process statement for all equipment and processes related to emissions of GHGs. The statement shall be signed by the owner or operator and certify that the information provided is accurate and true.

402.2 Loss of Exemption: If a stationary source which was exempt from reporting pursuant to Section 105 will have actual emissions which will exceed 25,000 tons per year of CO₂e in any 12-month period, the source shall comply with the provisions of section 402.1.

402.3 Deadline to Submit: Any additional information requested by the APCO under section 402.1 above shall be submitted to the APCO within 30 days of the date of request.

500 ALTERNATIVE OPERATIONAL LIMIT AND REQUIREMENTS

The owner or operator may operate the permitted emission units at a stationary source subject to this rule under any one alternative operational limit, provided that at least 90 percent of the stationary source's emissions in every 12-month period are associated with the permitted emission units limited by the alternative operational limit.

501 ALTERNATIVE REQUIREMENTS: Upon choosing to operate a stationary source subject to this rule under any one alternative operational limit, the owner or operator shall operate the stationary source in compliance with the alternative operational limit and comply with the specified recordkeeping and reporting requirements.

501.1 The owner or operator shall report within 24 hours to the APCO any exceedance of the alternative operational limit.

501.2 The owner or operator shall maintain all purchase orders, invoices, and other documents to support information required to be maintained in a monthly log. Records required under this section shall be maintained on site for five years and be made available to District or U.S. EPA staff upon request.

501.3 Boilers: The owner or operator shall operate the boiler(s) in compliance with the following requirements:

501.3.1 The boiler shall not use more than (X quantity) of fuel in every 12-month period, or the boiler shall not operate more than (Y hours) in every 12 month period where X and Y are determined by the fuel burned, and Y is also dependent on the total Btu/hr rating of the boiler, as shown in Table 501.3:

Table 501.3				
Boiler Fuel	X	Y		
	Annual Fuel Use Cap	MMBtu/hr with 7000 hr cap	MMBtu/hr with 6000 hr cap	MMBtu/hr with 5000 hr cap
Natural Gas	13,000,000 Therms	190	≤220	≤260
LPG and Propane	11,700,000 gal	160	≤185	≤220
Oils: No.2, No.6, Crude	6,000,000 gal	140	≤160	≤180
Tires	31,000 tons	110	≤130	≤150
MSW	65,000 tons	110	≤130	≤150
Wood	67,000 tons	105	≤120	≤140
Pet Coke	24,000 tons	100	≤115	≤130
Ag Byproducts	38,000 tons	85	≤100	≤115

501.3.2 A monthly log of hours of operation, (quantity) of fuel used, and a monthly calculation of the total hours operated and (quantity) of fuel used in the previous 12 months shall be kept on site.

501.3.3 A copy of the monthly log shall be submitted to the APCO at the time of annual permit renewal. The owner or operator shall certify that the log is accurate and true.

502 EXCEEDING ALTERNATIVE OPERATIONAL LIMITS: The owner or operator of a stationary source subject to this rule shall obtain any necessary permits prior to commencing any physical or operational change or activity which will result in an exceedance of an applicable operational limit specified in section 501.

600 VIOLATIONS

601 FAILURE TO COMPLY: Failure to comply with any of the applicable provisions of this rule shall constitute a violation of this rule, and shall be subject to penalties pursuant to Section 42400 of the California Health and Safety Code, and/or the provisions of the District's Mutual Settlement Policy as determined by the APCO. Each day during which a violation of this rule occurs is a separate offense.

602 APPLICABLE FEDERAL REQUIREMENTS: In addition to penalties assessed pursuant to section 601, a stationary source which violates the provisions of 301.3, or which cannot demonstrate compliance with those provisions, shall be immediately subject to the provisions of Rule 507 and must submit an application for a permit pursuant to that rule within 12 months of the first day on which the source failed to show compliance. Failure to submit a required application shall be a separate offense from failing to comply with the limits in this rule, and each day during which the required application has not been submitted is a separate offense.

APPENDIX A

GREENHOUSE GAS WARMING POTENTIAL

PART 98—MANDATORY GREENHOUSE GAS REPORTING

Table A-1 of Subpart A—Global Warming Potentials (100-Year Time Horizon)

Name	CAS #	Chemical formula	Global warming potential (100 yr.)
Carbon dioxide	124-38-9	CO ₂	1
Methane	74-82-8	CH ₄	21
Nitrous oxide	10024-97-2	N ₂ O	310
HFC-23	75-46-7	CHF ₃	11,700
HFC-32	75-10-5	CH ₂ F ₂	650
HFC-41	593-53-3	CH ₃ F	150
HFC-125	354-33-6	C ₂ H ₅ F	2,800
HFC-134	359-35-3	C ₂ H ₂ F ₄	1,000
HFC-134a	811-97-2	CH ₂ FCF ₃	1,300
HFC-143	430-66-0	C ₂ H ₃ F ₃	300
HFC-143a	420-46-2	C ₂ H ₃ F ₃	3,800
HFC-152	624-72-6	CH ₂ FCH ₂ F	53
HFC-152a	75-37-6	CH ₃ CHF ₂	140
HFC-161	353-36-6	CH ₃ CH ₂ F	12
HFC-227ea	431-89-0	C ₃ HF ₇	2,900
HFC-236cb	677-56-5	CH ₂ FCF ₂ CF ₃	1,340
HFC-236ea	431-63-0	CHF ₂ CHF ₂ CF ₃	1,370
HFC-236fa	690-39-1	C ₃ H ₂ F ₆	6,300
HFC-245ca	679-86-7	C ₃ H ₃ F ₅	560
HFC-245fa	460-73-1	CHF ₂ CH ₂ CF ₃	1,030
HFC-365mfc	406-58-6	CH ₃ CF ₂ CH ₂ CF ₃	794
HFC-43-10mee	138495-42-8	CF ₃ CFHCFHCF ₂ CF ₃	1,300
Sulfur hexafluoride	2551-62-4	SF ₆	23,900
Trifluoromethyl sulphurpentafluoride	373-80-8	SF ₅ CF ₃	17,700
Nitrogen trifluoride	7783-54-2	NF ₃	17,200
PFC-14 (Perfluoromethane)	75-73-0	CF ₄	6,500
PFC-116 (Perfluoroethane)	76-16-4	C ₂ F ₆	9,200
PFC-218 (Perfluoropropane)	76-19-7	C ₃ F ₈	7,000
Perfluorocyclopropane	931-91-9	c-C ₃ F ₆	17,340
PFC-3-1-10 (Perfluorobutane)	355-25-9	C ₄ F ₁₀	7,000
Perfluorocyclobutane	115-25-3	c-C ₄ F ₈	8,700
PFC-4-1-12 (Perfluoropentane)	678-26-2	C ₅ F ₁₂	7,500
PFC-5-1-14 (Perfluorohexane)	355-42-0	C ₆ F ₁₄	7,400
PFC-9-1-18	306-94-5	C ₁₀ F ₁₈	7,500
HCFE-235da2 (Isoflurane)	26675-46-7	CHF ₂ OCHClCF ₃	350
HFE-43-10pccc (H-Galden1040x)	E1730133	CHF ₂ OCF ₂ OC ₂ F ₄ OCHF ₂	1,870
HFE-125	3822-68-2	CHF ₂ OCF ₃	14,900
HFE-134	1691-17-4	CHF ₂ OCHF ₂	6,320
HFE-143a	421-14-7	CH ₃ OCF ₃	756
HFE-227ea	2356-62-9	CF ₃ CHFOCF ₃	1,540
HFE-236ca12 (HG-10)	78522-47-1	CHF ₂ OCF ₂ OCHF ₂	2,800
HFE-236ea2 (Desflurane)	57041-67-5	CHF ₂ OCHF ₂ CF ₃	989
HFE-236fa	20193-67-3	CF ₃ CH ₂ OCF ₃	487

Name	CAS #	Chemical formula	Global warming potential (100 yr.)
HFE-245cb2	22410-44-2	CH3OCF2CF3	708
HFE-245fa1	84011-15-4	CHF2CH2OCF3	286
HFE-245fa2	1885-48-9	CHF2OCH2CF3	659
HFE-254cb2	425-88-7	CH3OCF2CHF2	359
HFE-263fb2	460-43-5	CF3CH2OCH3	11
HFE-329mcc2	67490-36-2	CF3CF2OCF2CHF2	919
HFE-338mcf2	156053-88-2	CF3CF2OCH2CF3	552
HFE-338pcc13 (HG-01)	188690-78-0	CHF2OCF2CF2OCHF2	1,500
HFE-347mcc3	28523-86-6	CH3OCF2CF2CF3	575
HFE-347mcf2	E1730135	CF3CF2OCH2CHF2	374
HFE-347pcf2	406-78-0	CHF2CF2OCH2CF3	580
HFE-356mec3	382-34-3	CH3OCF2CHF2CF3	101
HFE-356pcc3	160620-20-2	CH3OCF2CF2CHF2	110
HFE-356pcf2	E1730137	CHF2CH2OCF2CHF2	265
HFE-356pcf3	35042-99-0	CHF2OCH2CF2CHF2	502
HFE-365mcf3	378-16-5	CF3CF2CH2OCH3	11
HFE-374pc2	512-51-6	CH3CH2OCF2CHF2	557
HFE-449sl (HFE-7100)	163702-07-6 163702-08-7	C4F9OCH3 (CF3)2CF2OCH3	297
HFE-569sf2 (HFE-7200)Chemical blend	163702-05-4 163702-06-5	C4F9OC2H5 (CF3)2CF2OC2H5	59
Sevoflurane	28523-86-6	CH2FOCH(CF3)2	345
HFE-356mm1	13171-18-1	(CF3)2CHOCH3	27
HFE-338mmz1	26103-08-2	CHF2OCH(CF3)2	380
(Octafluorotetramethylene)hydroxymethyl group	NA	X-(CF2)4CH(OH)-X	73
HFE-347mmy1	22052-84-2	CH3OCF(CF3)2	343
Bis(trifluoromethyl)methanol	920-66-1	(CF3)2CHOH	195
2,2,3,3,3pentafluoropropanol	422-05-9	CF3CF2CH2OH	42
PFPME	NA	CF3OCF(CF3)CF2OCF2OCF3	10,300