

RULE REVISIONS TO REGULATE GREENHOUSE GASES **Rules 2, 23, 33, 33.1, 35, 42, and 76**

EXECUTIVE SUMMARY

Currently, Ventura County APCD (District) rules regulate "criteria" air pollutants and hazardous air pollutants. Criteria pollutants include oxides of nitrogen, reactive organic compounds, particulate matter, oxides of sulfur, and carbon monoxide. The United States Environmental Protection Agency (EPA) has recently taken steps to add greenhouse gases (GHGs) to the list of regulated pollutants. Because the thresholds of significance for GHGs are substantially higher than those for criteria and hazardous pollutants, EPA is proposing to "tailor" their regulations to include GHGs. The District has determined that certain revisions to District Rules and Regulations are required to implement EPA's tailoring requirements.

In the Preamble to the revisions to the federal code of regulations (40 CFR Parts 51, 52, 70, and 71), EPA summarizes their revisions as follows:

EPA is tailoring the applicability criteria that determine which stationary sources and modification projects become subject to permitting requirements for greenhouse gas (GHG) emissions under the Prevention of Significant Deterioration (PSD) and title V programs of the Clean Air Act (CAA or Act). This rulemaking is necessary because without it PSD and title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year (tpy) levels provided under the CAA, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to GHG sources, starting with the largest GHG emitters. This

rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from PSD and title V permitting for GHG emissions until at least April 30, 2016.

In this rule action, the following rules are proposed for revision as required by the EPA tailoring rule:

1. Rule 2, Definitions
2. Rule 23, Exemptions from Permit
3. Rule 33, Part 70 Permits, General
4. Rule 33.1, Part 70 Permits, Definitions
5. Rule 35, Elective Emission Limits
6. Rule 42, Permit Fees
7. Rule 76, Federally Enforceable Limits on Potential to Emit.

The proposed revisions include a number of changes. First, GHG applicability thresholds, and the appropriate two-step phase-in implementation dates, are being added to several rules. Also, GHGs are being added as regulated pollutants. Second, definitions are being added for "greenhouse gases," "CO₂ equivalent," and "Subject to Regulation." Other definitions are being amended to include GHGs.

It is important to note that only the largest air pollution sources in Ventura County will be required to comply with GHG permitting requirements at this time. Most permit holders in the district will not be effected by these new requirements.

Revisions unrelated to GHGs are also proposed. Definitions of "Portable" and "Stationary" are being added to Rule 2, and several Rule 23 exemptions are being revised for clarity and/or flexibility.

PROPOSED RULE REVISIONS – GREENHOUSE GASES

The proposed revisions for this rule action related to greenhouse gas emissions are discussed in detail below. Following this discussion, revisions unrelated

to greenhouse gases are discussed in a separate section.

Rule 2 - Definitions

Revisions to Rule 2 include both new definitions and revisions to existing definitions. The first revision is to the definition of "Air Contaminant," which will now include a reference to greenhouse gases.

Air Contaminant. "Air Contaminant" or "Air Pollutant" means any discharge, release, or other propagation into the atmosphere and includes but is not limited to, smoke, charred paper, dust, soot, grime, carbon, greenhouse gases, fumes, gases, odors, particulate matter, acids or any combination thereof. (Revised 6/23/81, xx/xx/10).

New definitions of "greenhouse gases," "CO₂ equivalent," and "Subject to Regulation" are being added. These definitions are substantially the same as definitions provided by EPA in their Tailoring revisions.

CO₂ Equivalent (CO₂e). "CO₂ Equivalent" shall mean the amount of GHGs emitted relative to the global warming potential of each pollutant. CO₂e shall be computed by multiplying the mass amount of emissions (tpy) for each greenhouse gas in the pollutant GHGs by the gas's associated global warming potential, as noted below, and summing the resultant values to compute CO₂e.

Global warming potentials are as published in Table A-1 to subpart A, 40 CFR part 98, Mandatory Greenhouse Gas Reporting, "Global Warming Potentials." (Added xx/xx/10)

Greenhouse Gases (GHGs). "Greenhouse Gases" shall mean the aggregate group of six greenhouse gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons (by category), perfluorocarbons (by category), and sulfur hexafluoride. (Added xx/xx/10)

Subject To Regulation. "Subject to Regulation" shall mean that an air contaminant is subject to either a provision in the federal Clean Air Act, or a nationally-applicable regulation codified by the federal Environmental Protection Agency, that requires actual control of the quantity of emissions of that air contaminant, and that such a control requirement has taken effect and is operative to control, limit or restrict the quantity of emissions of that air contaminant released from the regulated activity. (Added xx/xx/10)

The final proposed change to Rule 2 is the addition of the following abbreviations in Section B:

CO₂e - carbon dioxide equivalent
GHGs - greenhouse gases

Rule 23 - Exemptions from Permit

Subsection J.16 addresses the permitting requirements of agricultural operations where actual emissions are equal to or greater than 50 percent of federal major source thresholds. The revisions involve adding GHGs to the list of thresholds, with the appropriate implementation date:

<u>Pollutant</u>	<u>Threshold (Tons Per Year)</u>
Any single HAP	10
Combination of HAPs	25
CO, PM ₁₀ , or SO _x	100
<u>Greenhouse Gases (CO₂e)</u> <u>(effective July 1, 2011)</u>	<u>100,000</u>
<u>Greenhouse Gases (CO₂e)</u> <u>(until July 1, 2011)</u>	<u>No Limit</u>

<u>Attainment / Nonattainment Classification (Ozone)</u>	<u>Threshold (TPY) (ROC, NO_x)</u>
Attainment, Marginal, or Moderate	100
Serious	50
Severe	25
Extreme	10

Note that the July 1, 2010, implementation date is the second of two dates involved in the two initial steps of the phase-in of GHG requirements. The first date is January 2, 2011. On this date, GHG emissions are required to be added to title V (Part 70) permits for sources that "are subject to PSD or title V anyway due to their non-GHG pollutants." After July 1, additional large sources of GHG emissions will be phased-in. This includes "new sources as well as existing sources not already subject to title V that emit, or have the potential to emit, at least 100,000 tpy CO₂e."

Rule 33 - Part 70 Permits - General

Revisions to Rule 33 appear in Section B, Applicability. This section specifies the requirement to obtain a Part 70 permit. GHGs are added as follows:

The requirement to obtain a Part 70 permit pursuant to this rule shall apply to:

1. Any stationary source with a potential to emit of 100 tons per year or more of any regulated air pollutant **except greenhouse gases, for which a potential to emit of 100,000 tpy CO₂ equivalent emissions shall apply**

effective July 1, 2011. (Reference: 40 CFR 70.2 "Major Source" (2), "Subject to Regulation" (1); 70.3(a)(1))

As noted above, sources that already have a Part 70 permit on January 2, 2011, will have GHGs added to their permit when their renewed or revised permits are reissued. On July 1, 2011, all other sources with GHG emissions over the 100,000 ton per year threshold will begin the Part 70 permit process.

Rule 33.1 - Part 70 Permits - Definitions

Two definitions in Rule 33.1 are proposed for revision. The definition of "Federally-Enforceable Requirement" is currently limited to a specific number of listed situations. The proposed additional language will open the definition to other requirements "promulgated by the administrator of the EPA."

- 11. "Federally-Enforceable Requirement": Any air pollution requirement set forth in, or authorized by, the federal Clean Air Act or EPA regulations. In addition, conditions of a Part 70 permit are federally-enforceable requirements, unless such conditions are designated as not being federally-enforceable pursuant to Rule 33.3.C. Federally enforceable requirements include requirements that are included in regulations promulgated by the administrator of the EPA at the time of issuance of a Part 70 permit but have future effective dates. Federally-enforceable requirements include, but not limited to, all of the following:**
- a. Title I requirements of the federal Clean Air Act, including, but not limited to, all of the following:**

For the definition of "Regulated Air Pollutant," greenhouse gases are proposed for addition. The definition will be amended on the federal implementation date.

- 19. "Regulated Air Pollutant": Any pollutant which is emitted into or otherwise enters the ambient air, and which is listed among the following:**
- f. Greenhouse gases (effective January 2, 2011).**

Rule 35 – Elective Emission Limits

Rule 35 allows a source to take voluntary limits on its potential to emit to remain exempt from Rule 33, Part 70 Permits. A permit issued pursuant to Rule 35 is commonly known as "federally enforceable state operating permit," or FESOP permit.

The proposed revision to Rule 35 is the addition of "greenhouse gas" to the list of information required for an elective emission limit request.

B. Request For Elective Emission Limits

A voluntary request for federally-enforceable elective emission limits shall take the form of a permit application and shall be subject to fees according to Rule 42, Sections A and E. The application shall include:

- 1. The identification and description of all existing emission units at the stationary source for which federally-enforceable elective emission limits are being requested. Existing emission units may include units permitted pursuant to Rule 10 (Permits Required), units exempt from permit pursuant to Rule 23 (Exemptions from Permit), and other sources of both hazardous air pollutant emissions and other regulated air pollutant emissions;**
- 2. The identification of all criteria, ~~and~~ hazardous, and greenhouse gas air pollutants for each existing emission unit identified in Subsection B.1 for which federally-enforceable elective emission limits are being requested;**

Rule 42 – Permit Fees

Staff is proposing a greenhouse gas permit renewal fee, which appears on the renewal fee chart on page 6 in Rule 42.H. The air contaminant will appear as "Greenhouse Gases (CO₂e)" and will apply only to "tons per year" emissions. The initial fee proposal is \$0.01 (one cent) per ton per year of CO₂e. The Bay Area Air Quality Management District charges \$0.044 per ton per year. The proposed revision also specifies that the fee will apply only to Part 70 Permit sources that have GHG emission on their permit. No other sources will be effected at this time. To review the proposed revisions, please see Appendix A.

Rule 76 - Federally Enforceable Limits on Potential to Emit

Rule 76 is known as a "prohibitory" rule that exempts many smaller sources from Rule 33, Part 70 Permits. To do this, Rule 76 uses "actual emissions" as a surrogate for "potential to emit." In general, a source whose actual emissions are less than 50 percent of a part 70 permit threshold will remain exempt from Rule 33 even if the source's "potential to emit" is in excess of a part 70 permit threshold. The vast majority of permits issued by the District are exempt from part 70 permit requirements as a result of Rule 76.

Rule 76 enables permit holders to electively limit their emissions in a federally enforceable manner. In this way, sources that have the potential to emit air contaminants equal to or greater than the threshold for a major source of regulated air pollutants or a major source of hazardous air pollutants (HAPs) may avoid the permitting requirements for that level of emissions. Because various sections of the rule address different percentages of the "major source" thresholds, varying thresholds for greenhouse gas emissions are being added to the rule.

In Section A, Applicability, de minimis emission levels are twenty percent of the "major source" thresholds, which, for GHGs, is 100,000 tons per year. Therefore, greenhouse gases are added to Subsection A.2 as follows:

2. **Stationary Source with De Minimis Emissions: The recordkeeping and reporting provisions in Sections C, D and E below shall not apply to a stationary source with de minimis emissions or operations as specified in either Subsection A.2.a or A.2.b below:**
 - a. **In every 12-month period, the stationary source emits less than or equal to the following quantities of emissions:**
 - 1) **5 tons per year of a regulated air pollutant (excluding HAPs and greenhouse gases),**
 - 5) **20,000 tons per year of all greenhouse gases (as CO₂e).**

The limits established in Section B, Emission Limitations, define the maximum quantity of emissions allowed for a federally enforceable emission limit. These levels are fifty percent of the "major source"

thresholds. Therefore, greenhouse gases are added to Subsection B.1 as follows:

1. **Unless the owner or operator has chosen to operate the stationary source under an alternative operational limit specified in Subsection E.1 below, no stationary source subject to this rule shall emit in every 12-month period more than the following quantities of emissions:**
 - a. **50 percent of the major source thresholds for regulated air pollutants (excluding HAPs), as follows:**
 - 1) **50 tons per year of any regulated air pollutant, except greenhouse gases, for which a limit of 50,000 tpy CO₂ equivalent emissions shall apply.**

The reporting specified in Section D, Reporting Requirements, does not apply to sources with emission levels that do not exceed 25 percent of the "major source" thresholds. Therefore, greenhouse gases are added to Subsection D.2 as follows:

2. **For the purpose of determining compliance with this rule, this requirement shall not apply to stationary sources which emit in every 12-month period less than or equal to the following quantities:**
 - a. **For any regulated air pollutant (excluding HAPs and greenhouse gases), 25 percent of the major source thresholds, as follows:**
 - 1) **25 tons per year of any regulated air pollutant,**
 - 2) **6.25 tons per year NO_x or ROC,**
 - e. **25,000 tons per year of all greenhouse gases (as CO₂e).**

Two definitions in Section G, Definitions, are proposed for revision. Greenhouse gases will be added to "Major Source of Regulated Air Pollutants" and "Regulated Air Pollutant," as follows:

7. **"Major Source of Regulated Air Pollutants" (excluding HAPs): A stationary source that emits or has the potential to emit a regulated air pollutant (excluding HAPs) in quantities equal to or exceeding the lesser of any of the following thresholds:**

- a. 100 tons per year (tpy) of any regulated air pollutant except greenhouse gases, for which a potential to emit of 100,000 tpy CO₂ equivalent emissions shall apply.;

Fugitive emissions of these pollutants shall be considered in calculating total emissions for stationary sources in accordance with 40 CFR Part 70.2 "Definitions- Major source(2)".

12. "Regulated Air Pollutant": The following air pollutants are regulated:

- a. Oxides of nitrogen and volatile organic compounds;
- f. Greenhouse gases, as CO₂e (effective January 2, 2011).

PROPOSED RULE REVISIONS – OTHER CHANGES

The proposed revisions unrelated to greenhouse gas emissions are discussed in detail below.

Rule 2 – Definitions

To clarify certain permitting situations, staff is proposing to add definitions of "Portable" and "Stationary." These definitions are similar to those that currently appear in VCAPCD Rule 250 - Registration Of Agricultural Engines.

Portable. "Portable" means a device that is not stationary. (Added xx/xx/10)

Stationary. "Stationary" means a device that meets any one of the following criteria:

1. The device is attached to a foundation, or if not so attached, resides at the same location for more than 12 consecutive months. A backup, standby or replacement device that replaces a device at a location and is intended to perform the same or similar function as the device being replaced shall be included in calculating the consecutive time period. The cumulative time of all devices, including the time between the removal of the original device and installation of the replacement device, shall count toward the consecutive time determination; or
2. The device is not attached to a foundation and is located at a seasonal location for less than 12 consecutive months. To be stationary, the device must be located at the seasonal source for at least three months each year for at least two years.
3. The device is moved from one location to another in an attempt to circumvent the 12 month residence time requirement in

paragraph 1 above. The period during which the device is maintained at a storage facility shall be excluded from the consecutive time determination.

4. The device is moved around a location under the same or common ownership, operation, or control, or owned or operated by entities which are under common control, but not necessarily located on contiguous or adjacent properties, and performs the same primary function at each location. (added xx/xx/10)

Only Subsection 2 in the "Stationary" definition differs from the Rule 250 definition. In this case, slightly different criteria for seasonal equipment to be stationary is being proposed for clarity.

Rule 23 – Exemptions from Permit

A number of revisions are proposed for Rule 23. The first is in Section A - Burning, Incineration and Smoke. Staff proposed to remove the exemption from permit for safety flares in Subsection A.4, as follows:

4. Until July 1, 2011, safety flares exclusively used for emergency standby for the disposal of process gases in the event of unavoidable process upsets. (Adopted 6/14/77, Revised xx/xx/10)

Staff is proposing this revision because enforcement of the exemption is becoming difficult; staff suspects that safety flares are frequently used for other purposes. In addition, most safety flares are large enough to have a significant potential to emit greenhouse gases. On July 1, 2011, all safety flares will require a permit to operate.

A revision is proposed for Section D - Vehicles, Engines. Staff has found that the use of emergency portable engines for electrical generation is increasingly difficult to enforce. The revision will specify that portable engines powering certain electrical generators will no longer be considered portable and will be subject to permit.

7. **Emergency internal combustion engines, as follows:**

- c. **Portable engines used for emergency purposes. An engine powering a generator connected to a facility's electrical grid shall not be considered a portable engine.**

In Section F - Organic Compound Emissions, staff is proposing to amend the permit exemption for polyester resin operations under 20 gallons a month. In Ventura County, boat yards are one of several significant users of polyester resin. The repair of a large boat may require more than 20 gallons of materials. Large repairs like this happen infrequently. To allow boatyards to make an occasional large repair, staff proposes to change the exemption to 240 gallons over a 12 month rolling total. Although flexibility will increase, annual ROC emissions will not. The revised exemption will be consistent with other emissions-based paint and solvent exemptions based on a 12 month rolling total.

14. **Polyester resin operations using less than 20 240 gallons of polyester resin materials each month over a rolling period of 12 consecutive calendar months, including unsaturated polyester resins, cross-linking agents, catalysts, gel coats, inhibitors, accelerators, promoters, and any other material containing ROC and used in the polyester resin operation. Inert filler and cleaning material is specifically excluded from this determination.**

Rule 33 – Part 70 Permits – General

Staff proposes to delete from Rule 33, Subsection B.2, wording that is no longer relevant. This wording applies to EPA approval dates that have passed.

2. ~~**The following language shall remain in effect until the effective date of EPA's approval of the revision to this subsection: Any stationary source with a potential to emit 25 tons per year or more of either reactive organic compounds or nitrogen oxides.**~~

~~**The following revised language shall take effect on the effective date of EPA's approval of this language:**~~

~~**Any stationary source with a potential...**~~

Rule 42 – Permit Fees

The following paragraph in Section H is proposed for deletion. Rocket motor testing is no longer done in Ventura County.

~~**Hourly carbon monoxide (CO) emissions occurring solely as a result of rocket motor testing are exempt from annual permit renewal fees.**~~

Rule 76 – Federally Enforceable Limits on Potential to Emit

As illustrated on page 4 above, staff proposes to amend a number of sections in Rule 76 for clarity. These changes involve expanded numerical references (Subsection A.2.a or A.2.b) and additional distinctions between sections and subsections (Subsection E.1). The meaning of the rule with respect to these revisions will not change. Please see the draft rule for all proposed revisions.

EMISSION REDUCTION / COST EFFECTIVENESS

Health & Safety Code § 40703 states that the district must consider, and make public, "the cost-effectiveness of a control measure." The proposed revisions are not control measures, so it is not necessary to calculate cost-effectiveness.

Nevertheless, the proposed revisions are administrative in nature and no significant additional costs to stakeholders are expected; much, but not all, GHG

emission information is already reported. District costs to implement a permitting program for GHGs will occur. Proposed revisions to Rule 42 are expected to compensate for these additional costs.

In addition, because BACT requirements and feasible control measures are not involved, an incremental cost-effectiveness analysis under Health & Safety Code Section 40920.6 is not required.

SOCIOECONOMIC IMPACT

Health & Safety Code § 40728.5 requires the Air Pollution Control Board consider the socioeconomic impact of any new rule or amendment to an existing rule if air quality or emission limits are significantly effected. The proposed revisions are administrative

in nature and do not include emission limits. The proposed revisions will significantly affect neither air quality nor emission limitations in Ventura County. Therefore, an evaluation of the requirements of Health & Safety Code § 40728.5 is not necessary.

ENVIRONMENTAL IMPACTS OF METHODS OF COMPLIANCE / CEQA

Methods of Compliance

California Public Resources Code § 21159 requires the District to perform an environmental analysis of the reasonably foreseeable methods of compliance if the proposed rule requires "the installation of pollution control equipment, or [specifies] a performance standard or treatment requirement..." The proposed revisions are administrative in nature and do not involve a requirement to install air

pollution control equipment. Therefore, an analysis is not necessary.

CEQA Requirements

Staff has determined that the proposed revisions are exempt from the requirements of the CEQA under Section 15061(b)(3) of the CEQA Guidelines because it can be seen with certainty that there is no possibility that these changes may have a significant effect on the environment.

ANALYSIS OF EXISTING FEDERAL AND DISTRICT REGULATIONS

California Health & Safety Code § 40727.2(a) requires districts to provide a written analysis of existing regulations prior to adopting, amending or repealing a regulation. Section 40727.2(a) states:

In complying with Section 40727, the district shall prepare a written analysis as required by this section. In the analysis, the district shall identify all existing federal air pollution control requirements, including, but not limited to, emission control standards constituting best available control technology for new or modified equipment, that apply to the same equipment or source type as the rule or regulation proposed for adoption or

modification by the district. The analysis shall also identify any of that district's existing or proposed rules and regulations that apply to the same equipment or source type, and all air pollution control requirements and guidelines that apply to the same equipment or source type and of which the district has been informed pursuant to subdivision (b).

The proposed revisions include no emission control standards; therefore, the requirements of Health & Safety Code § 40727.2(a) are satisfied pursuant to Health & Safety Code § 40727.2(g).

APPENDIX A
Proposed Revisions to Rule 42, Permit Fees

The renewal fee shall be based on the following schedule plus annual CPI adjustments directed by the Board after 6/30/2000:

<u>Air Contaminant</u>	<u>Dollars per Ton/Yr</u>			<u>Dollars per Lb/Hr</u>	
	<u>Effective Dates</u>			<u>Effective Dates</u>	
	<u>Through 6/30/2009</u>	<u>After 6/30/2010</u>		<u>Through 6/30/2009</u>	<u>After 6/30/2010</u>
Reactive Organic Compounds (ROC)	\$87.50	\$91.00	+	\$87.50	\$91.00
Nitrogen Oxides (NOx)	\$87.50	\$91.00	+	\$87.50	\$91.00
Particulate Matter (PM)	\$66.00	\$68.00	+	\$66.00	\$68.00
Sulfur Oxides (SOx)	\$44.25	\$45.00	+	\$44.25	\$45.00
Carbon Monoxide (CO)	\$ 9.00	\$ 9.50	+	\$ 9.00	\$ 9.50
Greenhouse Gases (CO2e)	<u>\$ 0.01 (effective January 1, 2011)</u>				
Other Pollutants	\$66.00	\$68.00	+	\$66.00	\$68.00

Renewal fees for Greenhouse Gases shall apply only to stationary sources that hold Part 70 permits issued pursuant to Rule 33, Part 70 Permits, upon which Greenhouse Gases appear as permitted emissions.

The permit renewal fee, however, shall not be less than a minimum fee calculated using the following method. Determine which pollutant among ROC, NOx, PM or SOx has the largest annual permitted emissions. Use the annual permitted emissions of that pollutant to determine the minimum fee from the following table. For a facility with no permitted emissions of any of these pollutants, the minimum fee shall be the lowest fee in the following table effective at the time of the permit renewal plus annual CPI adjustments directed by the Board after 6/30/2000.

<u>Permitted Emissions</u>	<u>Minimum Renewal Fee</u>	
	<u>Effective Dates</u>	
	<u>Through 6/30/2009</u>	<u>After 6/30/2009</u>
Less than 5 tons/year	\$ 509.00	\$ 525.00
Less than 10 tons/year	\$1,017.00	\$1,050.00
Less than 15 tons/year	\$1,525.00	\$1,575.00
Less than 20 tons/year	\$2,034.00	\$2,100.00
Less than 25 tons/year	\$4,068.00	\$4,210.00
Equal to or more than 25 tons/year	10,170.00	\$10,525.00