Santa Barbara County Air Pollution Control District
STAFF REPORT – June 19, 2008

REVISIONS TO

RULE 102. DEFINITIONS
REGULATION II. PERMITS
RULE 333. CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES

BACKGROUND

The Santa Barbara County Air Pollution Control District (APCD) proposes modifications to Rule 201 and Rule 202, which implement the APCD permitting process, and Rule 333, which specifies the requirements for engines.

The APCD first required Permits to Operate for piston-type internal combustion engines in 1988. In 1991, the APCD adopted Rule 333 to control emissions from reciprocating internal combustion engines. Other than a minor change to a rule reference in 1997, the APCD has not modified Rule 333 from the originally adopted rule. In 1995, the EPA suggested changes to the engine permitting exemptions in Rule 202 and changes to Rule 333 to make the rules acceptable for inclusion into the State Implementation Plan.

In 1997, the APCD adopted Rule 201 and Rule 202 revisions as part of major revisions to Regulation II (Permits). That rulemaking effort included moving the New Source Review provisions out of Regulation II into a new Regulation VIII (New Source Review).

The 1997 Regulation II changes modified the permitting requirements for engines. Those changes included revising the drill rig exemption, adding an exemption for engines registered in the statewide registration program, and exempting other miscellaneous engines.

The APCD did not modify Rule 333 as part of the 1997 Regulation II changes. Thus, staff did not address EPA suggestions at that time. The current rulemaking effort includes changes to engine requirements in Rule 202 and Rule 333 to address the EPA issues.

Aside from the March 2005 Rule 202 revision to expand permit applicability for diesel engines for the implementation of the state Airborne Toxic Control Measure, the APCD has not modified Rule 202 since 1997.

PROPOSED REVISIONS

This rulemaking effort addresses all ARB-identified suggestions and all EPA-identified deficiencies regarding the permitting and control of internal combustion engines. These concerns, summarized in Appendix A, need to be addressed in order for the engine permitting requirements of Rule 202 and the Rule 333 engine requirements to be considered for inclusion in the State Implementation Plan.

During the rule development process, the APCD received requests to modify and add Rule 202 permit exemptions that are unrelated to the internal combustion engine (ICE) exemptions. The APCD considered each request and, where suitable, included the new or amended exemption provision.

In the amended Rule 333 provisions, oxides of nitrogen (NOx), carbon monoxide (CO), and reactive organic compound (ROC) limits for ICEs are revised to meet a "Reasonably Available Control Technology" (RACT) level of control. The EPA requires that rules have, at a minimum, a RACT level of control for them to be included in the State Implementation Plan.

The changes to the emission limits for spark ignition internal combustion engines are consistent with the RACT standards in the CARB Reasonably Available Control Technology and Best Available Retrofit Control Technology Determination.[1] The changes to the emission limits for compression ignition engines are based on other air district's RACT standards.[2, 3]

These rule changes demonstrate that the District's Clean Air Plan to attain the California ambient ozone standard provides for expeditious implementation of "every feasible measure" to reduce ozone precursor emissions.

The APCD expects the proposed revisions to Rules 202 and 333 pertaining to ICEs to result in 6.5 tons per year of NOx emission reduction and 0.03 ton per year of ROC emission increase. The cost-effectiveness of the Rule 333 revision is estimated to be between $1,550 and $11,532 per ton of NOx reduced.

Key provisions of proposed amended Rule 333 are illustrated in flowchart format in Appendix M.

Sources that May be Affected by the Changes to Rule 202.F and Rule 333

The sources using an engine that may be affected by this rulemaking effort include, but are not limited to, sources performing: oil and gas exploration, production, processing and petroleum product marketing; mineral processing; construction; and agricultural operations subject to the APCD Part 70 Operating Permit Program. Emergency standby engine requirements will not be affected by the proposed rule revisions.

Appendix B summarizes the known companies with permit-exempt engines that will become subject to permitting requirements due to the Rule 202.F revisions. Appendix C lists the known sources operating engines currently subject to or that will become subject to the Rule 333 emission limits under the proposed amended rules.

Rule 102, Definitions

The APCD proposes to add and modify several definitions that are used in various parts of the rulebook.

Appendix D contains an annotated proposed amended Rule 102 with notes on the origin and necessity for each of the new and revised definitions.

Rule 201, Permits Required

The Rule 201.D.2 provisions on exempting or permitting pile drivers, pipe-laying barges, and derrick barges is relocated into Rule 202, Section F.7. The Rule 202.F.7 provision is expanded to include cable-laying and pipe-laying vessels.

The Section D.1 alphanumerical designation is reduced to Section D (due to the relocation of Section D.2). The APCD is adding text to Rule 201, Section D, indicating equipment use requires an Authority to Construct.

Appendix E contains an annotated proposed amended Rule 202 with notes on the new and revised provisions.

Rule 202, Exemptions to Rule 201

The APCD proposes changes to the rule to 1) delete the construction engine and well drilling equipment exemption, 2) add five new exemptions, and 3) modify several existing exemptions.

Appendix F contains an annotated proposed amended Rule 202 with notes on the new and revised provisions.

Rule 333, Control of Emissions from Reciprocating Internal Combustion Engines

Changes to Rule 333 1) address ARB and EPA concerns and 2) revise the emission limits to be consistent with the RACT standards.

Appendix G provides an annotated proposed amended Rule 333 with notes on each proposed change. The following table provides a summary of the Rule 333 NOx emission limit changes.

SUMMARIZED OXIDES OF NITROGEN EMISSION LIMIT CHANGES RESULTING FROM THE PROPOSED AMENDED RULE 333

Engine Type	Rule 333 NOx Limits Effective December 3, 1991		Rule 333 NOx Limits Effective [*date of revised rule adoption*]		Effect of Rule 333 Change
	% Control	ppmv (at 15% O2)	% Control	ppmv (at 15% O2)	
Rich-Burn Noncyclically-Loaded Spark Ignition Engines – Category 1 Engines	90	50	90	50	No change
Lean-Burn Spark Ignition Engines in the 50 to less than 100 brake horsepower (bhp) Range – Category 2 Engines	80	125	-	200	Increased emission limit
Lean-Burn Spark Ignition Engines Rated 100 bhp or Greater – Category 3 Engines	80	125	80	125	No change
Rich-Burn Cyclically-Loaded Spark Ignition Engines – Category 4 Engines	90	50	-	300	Increased emission limit
Compression Ignition Engines and Dual-Fuel Engines – Category 5 Engines	-	797	40	700	Decreased emission limit

NOx EMISSION REDUCTION / COST-EFFECTIVENESS

The APCD identified ten engines in Santa Barbara County that will require the application of emission control techniques (or enhanced emission control techniques) as a result of the changes to Rules 202 and 333. Because emission reductions will occur, a discussion of the cost-effectiveness and incremental cost-effectiveness data follows.

NOx Emission Reductions

Appendix H indicates the total emission reduction from modifying Rules 202 and 333 is 6.5 tons of NOx per year.

Cost-Effectiveness

The cost-effectiveness associated with revising Rule 333 ranges from $1,550 to $11,532 per ton of NOx reduced. Appendix H includes a summary of the cost-effectiveness data.

Incremental Cost-Effectiveness

Health and Safety Code Section 40920.6 requires the performance of an incremental cost-effectiveness analysis for a regulation that identifies more than one control option to meet the same emission reduction objectives. Incremental cost-effectiveness is

defined as the difference in costs divided by the difference in emission reductions between one level of control and the next more stringent level of control.

Rule 333 requires compliance with NOx, ROC, and CO emission limits. Although, the APCD expects the engines to be able to meet the limits with low-emissions tuning procedures, sources could replace the engine with an electric motor in lieu of complying with the engine exhaust limits. The incremental cost-effectiveness between the low-emissions tuning procedure and electrification is assessed to be $479 per ton of NOx reduced. Appendix H also includes a summary of the incremental cost-effectiveness data.

ENVIRONMENTAL IMPACTS OF METHODS OF COMPLIANCE / CEQA

Methods of Compliance

California Public Resources Code § 21159 requires the APCD 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 to Rule 333 specify revised performance standards. Many existing sources already comply with the proposed revisions by performing low emissions tuning or using either clean burn kits for lean-burn engines or selective catalytic convertors for rich-burn engines. These are the most reasonably foreseeable methods of compliance.

CEQA Requirements

Pursuant to the California Environmental Quality Act (CEQA) Guidelines Section 15070 and the APCD Environmental Review Guidelines, adopted in October 1995 and revised in November 2000, the Technology and Environmental Assessment Division of the APCD prepared a Negative Declaration for the implementation of revised APCD Rules 102 (Definitions), 201 (Permits Required), 202 (Exemptions to Rule 201), and 333 (Control of Emissions from Reciprocating Internal Combustion Engines).

The proposed Negative Declaration was circulated for public review for a period of 30 days from May 12, 2008 to June 12, 2008.

ANALYSIS OF EXISTING FEDERAL AND DISTRICT REGULATIONS

Appendix I contains the written analysis required by the California Health & Safety Code Section 40727.2 requirements.

COMMENTS AND PUBLIC MEETINGS

Comments

Appendix J contains the comments received in response to the workshops and stakeholder meetings. Appendix J also contains the APCD's responses to the comments.

Meetings

PUBLIC WORKSHOP, DECEMBER 8, 2005

Industry representatives had concerns on the proposed revisions to the definitions, permitting requirements, and the engine provisions. There were also concerns on the proposed stacking provisions and other nuances of the APCD permitting and enforcement processes.

WSPA STAKEHOLDERS' MEETING, MARCH 3, 2006

WSPA met with APCD personnel and discussed several concerns. These included the loss of the construction equipment and well drilling equipment exemptions and requiring emission offsets for such short term projects. Also, there was discussion on requirements for continuous emissions monitors, source testing averaging times, engine modes during testing, and routine engine monitoring (quarterly vs. monthly).

STAKEHOLDERS' MEETING, JANUARY 25, 2007

The APCD released revised proposed amended rules to the public on December 15, 2006. To get industry feedback on the latest proposed amended rules, the APCD met with stakeholders on January 25, 2007. During the meeting, the group discussed rule revision issues and the progress being made to resolve them.

EXXONMOBIL MEETING, JUNE 12, 2007

Staff met with ExxonMobil representatives and discussed concerns about the proposed revised rules. Many of the concerns were the same ones raised earlier by WSPA (e.g., loss of the well drilling equipment exemption, the construction equipment exemption, and offset requirements). The discussion included information on the past, current, and future Santa Ynez Unit Project construction and operations.

VANDENBERG AIR FORCE BASE MEETING, JUNE 14, 2007

The VAFB representatives presented their concerns on construction emissions, equipment emissions (i.e., the handling of construction emissions associated with non-permitted structures and infrastructure-type utility pipelines and power lines), the treatment of marine vessel emissions when they are associated with VAFB, microturbines used for backup distributed generation, and the 55 gallons per year exemptions (e.g., Rule 202.I.3, coatings application equipment exemption, and Rule 202.U.3, solvent wipe cleaning exemption).

PUBLIC WORKSHOP, FEBRUARY 13, 2008

The regulated community indicated that they generally appreciated the newly proposed permit exemptions. Further, the new exemptions addressed many of the industry's concerns stemming from the deletion of the well drilling and construction equipment exemptions. However, they provided suggestions on additional changes to the exemptions provisions, clarification of existing exemptions, revisions to the Background Paper, and possible revisions to the APCD permitting program to avoid new source review for short-term projects. They also expressed a concern about possible CEQA implications (e.g., emissions mitigation) if the APCD grants a permit or an exemption under one of the new provisions (Rule 202.F.7, 202.F.8, or Rule 202.P.14).

The APCD answered questions, addressed some of the concerns and agreed to research and/or give further consideration to other concerns, requests, and suggestions.

On proposed amended Rule 202.F.1.f, industry would prefer that the APCD not require permits for spark ignition engines rated less than 50 bhp. Staff explained that there would be a rule relaxation issue (New Source Review provisions) and Part 70 Operating Permit provisions if the APCD eliminated the existing permit requirements for engines rated less than 50 bhp. However, to alleviate some the concern, the APCD has agreed to revise the proposed threshold from 250 bhp to 400 bhp (based on the distribution of engines). The proposed range of the engine bhp ratings will remain the same: greater than 20 through less than 50 bhp.

Regarding the CEQA implications, the APCD anticipates being able to address these through the rulemaking process, thereby simplifying project-specific CEQA analyses associated with the Rule 202 provisions.

APCD staff confirmed that past alternative methods for determining fuel usage for an engine without a dedicated fuel meter will continue to be acceptable (e.g., methods that take into account the individual engine operating hours, brake specific fuel consumption ratings and bhp ratings, and the fuel's higher heating value).

COMMUNITY ADVISORY COUNCIL MEETING, APRIL 23, 2008

The Community Advisory Council (CAC) recommended that the staff report include clarifications on the emissions offset requirements and the use of the temporary equipment exemption. With incorporation of those clarifications, the CAC passed a motion to recommend that the Board approve the proposed amended rules. Staff has provided these clarifications in Attachment N, Frequently Asked Questions.

PUBLIC HEARING ON THE ADOPTION OF THE PROPOSED AMENDED RULES, JUNE 19, 2008

The Board is scheduled to consider the adoption of the revised rules at the June 19, 2008 Public Hearing.

COMPARISON OF ADJOINING APCD RULES

Appendix K provides a comparison of the San Joaquin Valley APCD, Ventura County APCD, and the San Luis Obispo County APCD rules on permit exemptions and requirements for internal combustion engines. Basically, there are general similarities with some minor differences between the adjoining air district rules and the proposed amended rules.

IMPACTS OF THE REVISED RULES TO INDUSTRY AND THE APCD

Details of the impacts from the rule revisions are summarized in Appendix L. The rule revisions will cause impacts to the regulated community and APCD staff by:

1. Eighty-nine previously exempt engines becoming subject to permitting (new applications).
2. Eleven engines becoming subject to Rule 333 emission limits for the first time.
3. Ten engines requiring an emission control technique or use of an enhanced emission control technique (modification applications for engines listed in Appendix H, Table 1).
4. The requirement to submit new and revised Inspection and Maintenance Plans and Compliance Plans.
5. The initial and subsequent source testing of engines to demonstrate compliance with a new or revised emission limit.
6. Applying and verifying control techniques to comply with the Rule 333 emission limits.
7. New or increased operating and monitoring costs.
8. New or increased fees associated with permitting, source testing, annual emissions, air quality plans, and the air toxics program.
9. Equipment owners or operators seeking exemptions under the new specialty equipment, gas turbine, or winery exemption provisions.

RULE CLARIFICATION ISSUES

During public workshops and meetings, members of the regulated community raised concerns and questions about the intent of certain rule provisions. These are addressed in the public comment section (Appendix J) and the Frequently Asked Questions (Appendix N).

REFERENCES

1. Air Resources Board, Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology for Stationary Spark-Ignited Internal Combustion Engines, November 1991.

2. Sacramento Metropolitan Air Quality Management District, Rule 412, Stationary Internal Combustion Engines Located at Major Stationary Sources of NOx, June 1, 1995.

3. Ventura County Air Pollution Control District, Rule 74.9, Stationary Internal Combustion Engines, November 8, 2005.

APPENDICES

Appendix A: EPA and ARB Concerns on Rules 202 and 333 (Pursuant to Documents Dating from 1992 and 1994)
Appendix B: Known Companies with Permit-Exempt Engines that will Become Subject to Permitting Due to Revisions to Rule 202
Appendix C: Known Sources Currently Operating Engines Subject to or that will Become Subject to Rule 333 Emission Limits
Appendix D: Annotated Proposed Amended Rule 102, Definitions
Appendix E: Annotated Proposed Amended Rule 201, Permits Required
Appendix F: Annotated Proposed Amended Rule 202, Exemptions to Rule 201
Appendix G: Annotated Proposed Amended Rule 333, Control of Emissions from Reciprocating Internal Combustion Engines
Appendix H: Summarized Data on Emission Reductions, Cost-Effectiveness, and Incremental Cost-Effectiveness
Appendix I: Identification of Existing Federal and APCD Regulations that Apply to the Same Equipment or Source Type Covered in Rule 333
Appendix J: Public Comments and the APCD Responses
Appendix K: Comparison of the Proposed Amended Rules to the Rules in the Adjoining Air Districts
Appendix L: Impacts of the Revised Rules to Industry and the APCD
Appendix M: Flowchart Overviews of Proposed Amended Rule 333 Provisions on Applicability; Engine Identification, Meters, and Continuous Monitoring Systems; Emission Limits; and Compliance Schedule
Appendix N: Frequently Asked Questions

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Appendix A
Santa Barbara County
EPA and CARB Concerns on Rules 202 and 333 (Pursuant to Documents Dating from 1992 and 1994)

REFERENCE - AGENCY/LETTER	CATEGORY OF CONCERN	SECTION No.	CONCERN[a]	COMMENT
CARB Letter of March 6, 1992, Item 1	Rule Improvement Issue	D.3, Emission Limits for Cyclic Engines	In Section D.3, the requirements for cyclic engines are unclear. Section D.3.a requires at least 6.5% oxygen in exhaust at all times and prescribes a source testing schedule. Section D.3.b additionally requires compliance with emissions limits for NOx, ROC, and CO. However, Section D.3.c states that, instead of complying with Section D.3.a and D.3.b, the engine can be declared noncyclic and the owner or operator can comply with Section D.1. Section D.1 specifies emission limits for "noncyclic rich burn engines," which are identical to those specified in Section D.3.b for cyclic engines. The effect of Section D.3.c seems to be to make compliance with Section D.3.a entirely optional, but this may not be the intent of the District. It is also unclear whether the District intends that cyclic engines arbitrarily designated "noncyclic" be required to operate in "rich burn" mode, e.g., with oxygen below 4% in their exhaust. This section should be changed to clarify the District's intent. Another point of confusion is the reference in Section D.3.b to Section I. Section I.3.b seems to indicate that the District will decide within a year of adoption whether emission limits in Section D.3.b (or some other limits) are to be applied or not. If emission limits are to be set subsequent to rule adoption, it would be clearer to specify only emission limits which must be complied with immediately or, if no current limits apply, to indicate that emission limits may be imposed in the future and to describe the period which will be allowed for compliance once they are imposed.	Under the proposed amended Rule (PAR) 333, Section D.3 becomes Section E.3. Staff has deleted references to the requirement to maintain the 6.5% oxygen in the exhaust stream and source tests from this section. The proposed revisions to the definitions of *lean-burn* and *rich-burn engine* should prevent sources from changing the status of a rich-burn engine to be a lean-burn engine without obtaining a District approval. The optional Section D.3.c is deleted in the PAR. The revised rule provisions and the new *cyclically-loaded engine* definition do not provide an option for owners/operators to declare a cyclic engine to be a noncyclic engine. On March 2, 1993, the Air Pollution Control District Board of Directors held a public hearing to review additional information pertaining to the requirements of Section D. Industry did not provide any information on the emission limits at that time. Thus, no changes to the spark ignition emission limits were made and sources needed to be in full compliance with the Rule by March 3, 1994.

[a] These are verbatim from the referenced document.

REFERENCE - AGENCY/LETTER	CATEGORY OF CONCERN	SECTION No.	CONCERN[a]	COMMENT
CARB Letter of March 6, 1992, Item 2	Rule Improvement Issue	D.4, Emission Limits for Diesel Engines	Section D.4 specifies somewhat higher NOx limits for diesel engines than permitted in Sections D.1. or D.2, but does not indicate whether the emission limits for ROC and CO specified in those sections apply to diesel engines. The limits for ROC and CO emissions for diesel engines should be clearly indicated and, if none are to be imposed, this should be stated explicitly.	The Rule 333, Sections D.1 and D.2 limits were not intended to apply to compression ignition engines. Further, the diesel engine emission limits in Rule 333, Section D.4, only limited NOx emissions. Consistent with RACT requirements, the PAR 333 includes NOx, ROC, and CO emission limits for diesel engines. The text has been revised to clarify the applicable emission limits for the different engine classifications.
CARB Letter of March 6, 1992, Item 3	Rule Improvement Issue	G.3.a, Requirements - Testing, Test Methods	In Section G.3.a, the reference to "CARB Method 1-100" should be corrected to reference "CARB Method 100." In addition, the reference to "EPA Method 18 or EPA Method 25" should be changed to "EPA Method 25 for determination of total organics and EPA Method 18 for determination of exempt compounds," since the methods are not alternatives but are rather used in combination to determine ROC corrected for exempts.	The change to CARB Method 100 is reflected in the revised rule. Consistent with the CARB Spark-Ignited Engine RACT/BARCT determination, the draft rule includes references to the EPA methods. For ROC testing, our source testing staff prefers that the rule stipulate only the EPA method 18 with gas chromatography-flame ionization detection speciation analysis for C1, C2, C3, C4, C5, C6+ species.
EPA Notice of Proposed Rulemaking, Technical Support Document, November 1994, Item 1	Rule Deficiency	Section A,B Applicability/ Exemptions	Rule 333 applies to units with a rated brake horsepower of 50 or greater. Although Rule 333 is written as applicable to these size engines, SBCAPCD's Rule 202, which includes exemptions from permit requirements, exempts units rated below 100 brake horsepower. Rule 333 allows exemptions for units exempt from permit requirements. SBCAPCD has agreed to modify Rule 202 to ensure consistency with Rule 333. Therefore, the exemption provision in section B.1.b of Rule 333 should be deleted.	Providing a prohibitory rule exemption for permit-exempt equipment is a common practice (e.g., Rule 342.B.1.d). With the lowering of the single-engine permitting threshold to 50 bhp in Rule 202, the "consistency issue" will be eliminated. Thus, the Rule 333.B.1.b provision shall be maintained.

REFERENCE - AGENCY/LETTER	CATEGORY OF CONCERN	SECTION No.	CONCERN[a]	COMMENT
EPA Notice of Proposed Rulemaking, Technical Support Document, November 1994, Item 2	Rule Deficiency	Section C, Definitions	The definition of "rated brake horsepower" is specified as the maximum revolutions per minute specified by the manufacturer. The definition also allows an "alternative" bhp rating to be set by a district-issued permit to operate. Under this alternative rating, engines can be operated at different levels such as maximum rating, continuous rating, or derated. Since engine ratings are crucial for determining rule applicability, the provision in this section allowing alternative ratings should be deleted. EPA believes the definition should specify rating as output determined by the manufacturer and listed on the nameplate, regardless of any derating.	The revised *rated brake horsepower* definition, proposed to be moved to Rule 102, is similar to the San Joaquin Valley Unified APCD (SJV) Rule 4701 and Rule 4702 definitions. EPA approved those SJV rules into the SIP on May 18, 2004 (69 FR 28061). Thus, the Santa Barbara County APCD does not anticipate that EPA will identify the engine derating component of the definition to be a future rule deficiency.
EPA Notice of Proposed Rulemaking, Technical Support Document, November 1994, Item 3	Rule Deficiency	Section D.2 and D.4, Emission Limit Requirements	The provision specifying emission limits for diesel engines requires a limit of 8.4 g/bhp-hour be met. The corresponding concentration limit given as corrected to 15% oxygen is 797 ppm. These limits do not correspond to one another. 8.4 g/bhp-hr converts to approximately 670 ppm assuming 35% efficiency. Due to the discrepancy, the rule allows the least stringent (797 ppm) limit to be met. This limit should be corrected to reflect the RACT level of 8.4 g/bhp-hr. According to the definition given for lean-burn engines, (which includes diesel engines) it is unclear if diesel engines must comply with the 125 ppm limit given for lean burn engines or the 797 ppm limit. The rule should distinguish between lean burn and diesel engines so as not to cause ambiguity in which emission limits are applicable.	For compression ignition engines, the PAR 333 limits NOx to 700 ppmv at 15% O2 limit or, when using exhaust controls, a minimum 40% reduction. These limits are being proposed to meet a RACT level of control. Regarding the ambiguities on the engine definitions and the rule limits, the following changes are being made: 1) The Rule 333 definition of *diesel engine* is being moved to Rule 102 and it is being modified. 2) PAR 102 includes new definitions for *compression ignition engine, dual-fuel engine,* and *spark ignition engine.* 3) PAR 333 includes new definitions for *air-balanced pumping engine, beam-balanced pumping engine, crank-balanced pumping engine, four-stroke engine* and *stoichiometric air-to-fuel ratio.* 4) PAR 333 includes modified definitions of *cyclically-loaded engine, lean-burn engine, noncyclically-loaded engine, rich-burn engine,* and *two-stroke engine.* 3) PAR 333, Section E, uses specific engine classification terms, when setting emission limits.

REFERENCE - AGENCY/LETTER	CATEGORY OF CONCERN	SECTION No.	CONCERN[a]	COMMENT
EPA Notice of Proposed Rulemaking, Technical Support Document, November 1994, Item 4	Rule Deficiency	Section D.5, Emission Limit Requirements	Generally, alternative emission control plans (AECPs) are not approvable in rules unless the provisions meet the requirements of EPA's Emission Trading Policy Statement (ETPS) and Economic Incentive Program (EIP) requirements[b]. Rule 333 requires that AECPs must be submitted to SBCAPCD by March 9, 1992 and approved by the Control Officer, ARB, and EPA. There have been no AECPs submitted or approved and the option for submitting AECPs has expired. Thus, EPA is not evaluating this provision for approvability with the ETPS/EIP and does not consider it in this case a rule deficiency since it is no longer applicable. However it is recommended that these provisions be deleted.	PAR 333 does not include an alternative emission control provision.
EPA Notice of Proposed Rulemaking, Technical Support Document, November 1994, Item 5	Rule Deficiency	Section I, Compliance Schedule	Owners/operators of cyclic engines are allowed to comply with less stringent emission limits established by the Santa Barbara County Board of Supervisors through their public hearing process. This provision is intended to take into account additional information of a study proposed by industry to test the feasibility of the current rule emission limits in effect in Ventura County. Since no alternative limits were considered or established by the district's Board of Directors pursuant to section I.3., this provision is no longer applicable. However, it is recommended that these provisions by deleted.	On March 2, 1993, the Air Pollution Control District Board of Directors held a public hearing, but industry did not provide any information on the emission limits. Thus, no changes to the spark ignition emission limits were made and sources needed to be in full compliance with the Rule by March 3, 1994. The PAR 333 will delete the Section I.3 provisions. It is our understanding that compliance with the VCAPCD Rule was, for the most part, accomplished by electrification.

[b] The ETPS was published on December 4, 1986 in 51 FR 43814 and the EIP was published April 7, 1994 in 59 FR 16690 and 40 CFR Part 51, Subpart U, 51.490-51.494.

Appendix B
Santa Barbara County
Known Companies with Permit-Exempt Engines
That will Become Subject to Permitting due to Revisions to Rule 202[a]

Company Name (Stationary Source Identification No.)	Facility Name	Fac. No.	Equipment Description	Permit Category			
				Size > 20 bhp but < 50 bhp with > 400 bhp Aggregate (202.F.1.f)	Derated ICEs (202.F.1.f)	Size ≥ 50 bhp but < 100 bhp (202.F.1.f)	Well Drilling (Deleted 202.F.6)
B.E. Conway Energy, Inc. (SSID 1944)	Magenheimer Leases (A, B, C)	01946	1 Engine, DID No. 009094.		X		
Catco Energy (SSID 1510)	Tognazzini Lease (Catco)	03200	15 Engines, DID No. 002367, 002368, 002373, 002374, 002378, 002379, 002380, 002381, 002382, 002385, 002388, 002389, 002390, 002392, & 002393.	X			
Catco Energy (SSID 1510)	Tognazzini Lease (Catco)	03200	3 Engines, DID No. 002375, 002383, & 002414.		X		
Elysium Russell, LLC (SSID 4639)	Russell Ranch Lease	01086	11 Engines, DID No. 006265, 006268, 006269, 006271, 006272, 006723, 006274, 006279, 006281, 006282, & 006283.	X			
Elysium Russell, LLC (SSID 4639)	Russell Ranch Lease	01086	5 Engines, DID No. 006262, 006275, 006276, 006277, & 006290.		X		
ExxonMobil Production Company (SSID 1482)	Platform Harmony	08018	1 Engine, DID No. 005346.				X
ExxonMobil Production Company (SSID 1482)	Platform Heritage	08019	1 Engine, DID No. 005370.				X
Greka Oil & Gas, Inc. (SSID 5032)	Texas Lease	03327	1 Engine, DID No. 003155.			X	
Greka Oil & Gas, Inc. (SSID 2680)	Gato Ridge IC Engines (located at the Williams Holding Lease, FID 3512)	04215	5 Engines, DID No. 005203, 005204, 005205, 002506, & 005207.			X	
Greka Oil & Gas, Inc. (SSID 2680)[b]	Gato Ridge IC Engines	04215	1 Engine, DID No. 004439.		X		
Greka Oil & Gas, Inc. (SSID 2200)	Jim Hopkins Lease	03092	9 Engines, DID No. 002106, 002107, 002108, 002109, 002110, 002111, 002112, 002114, & 002115.		X		
Greka Oil & Gas, Inc. (SSID 8678)	Los Flores IC Engines (Vintage)	01848	10 Engines, DID No. 001258, 001260, 001261, 001262, 001266, 001267, 001269, 001270, 001273, & 008524.		X		
Greka Oil & Gas, Inc. (SSID 8675)	SMV East IC Engines	04212	7 Engines, DID No. 004223, 004231, 004233, 004236, 004237, 004239, & 004241.		X		

[a] Unless otherwise specified, the data is based on the 2005 Inventory. There may be additional engines subject to permitting that the APCD is unaware of.

Company Name (Stationary Source Identification No.)	Facility Name	Fac. No.	Equipment Description	Permit Category			
				Size > 20 bhp but < 50 bhp with > 400 bhp Aggregate (202.F.1.f)	Derated ICEs (202.F.1.f)	Size ≥ 50 bhp but < 100 bhp (202.F.1.f)	Well Drilling (Deleted 202.F.6)
Greka Oil & Gas, Inc. (SSID 8702)	Zaca Area IC Engines	04005	4 Engines, DID No. 003594, 003595, 003596, & 003603.		X		
Pacific Operators Offshore, Inc. (SSID 8001)	Platform Hogan	08001	1 Engine. DID No. 007107.				X
Pacific Operators Offshore, Inc. (SSID 8001)	Platform Houchin	08002	1 Engine. DID No. 007108.				X
Purisima Hills LLC (SSID 1153)	H.P. Boyne Lease	03777	6 Engines, DID No. 005908, 005909, 005910, 005911, 005912, & 009015.			X	
Santa Maria Refining Company (SSID 3730)	Armelin Lease	03736	4 Engines, DID No. 005947, 005949, 005950, & 006231.			X	
Venoco, Inc. (SSID 1063)	Platform Holly	03105	3 Engines, DID No. 009130, 009131, & 009132.				X
			TOTALS BY CATEGORY	26	40	16	7
			OVERALL TOTAL	89			

Appendix C
Santa Barbara County
Known Sources Operating Engines Currently Subject to or That will Become Subject to Rule 333 Emission Limits When the Proposed Amended Rules are Adopted[a]

Company Name, Stationary Source Description, and Facility Description	Stat. Source No.	Fac. No.	Device No.	Device Name	Bhp	ICE Will Become Subject to the Emission Limits for the 1st time due to the Rule Revisions[b]
BreitBurn Energy Company LP, BreitBurn Energy- Orcutt Hill, Orcutt Hill IC Engines	02667	04214	004434	IC Engine: (#19766)	400	
BreitBurn Energy Company LP, BreitBurn Energy- Orcutt Hill, Orcutt Hill IC Engines	02667	04214	004435	IC Engine: (#12163) Fox Injection	301	
City of Lompoc, City of Lompoc - WWT Plant, Lompoc WWT Plant	01708	01708	001192	IC Engine: Air Compressor	275	
City of Lompoc, City of Lompoc - WWT Plant, Lompoc WWT Plant	01708	01708	001193	IC Engine: Air Compressor	275	
City of Lompoc, City of Lompoc - WWT Plant, Lompoc WWT Plant	01708	01708	001194	IC Engine: Air Compressor	275	
DCOR, LLC, Platform Habitat, Platform Habitat	08012	08012	004972	IC Engine: South Crane	128	
DCOR, LLC, Platform Habitat, Platform Habitat	08012	08012	004973	IC Engine: North Crane	350	
DCOR, LLC, Platform Habitat, Platform Habitat	08012	08012	004985	IC Engine: Compressor IC Engine	1350	
DCOR, LLC, South County/Dos Cuadras, Platform A	08003	08003	004872	IC Engine: South Crane	109	
DCOR, LLC, South County/Dos Cuadras, Platform A	08003	08003	004873	IC Engine: North Crane	230	
DCOR, LLC, South County/Dos Cuadras, Platform B	08003	08004	004886	IC Engine: 15-Ton Pedestal Crane (South Crane)	109	
DCOR, LLC, South County/Dos Cuadras, Platform B	08003	08004	004887	IC Engine: 25-Ton Pedestal Crane (North Crane)	230	
DCOR, LLC, South County/Dos Cuadras, Platform Hillhouse	08003	08005	004905	IC Engine: 25-Ton Pedestal (North) Crane	238	
DCOR, LLC, South County/Dos Cuadras, Platform C	08003	08006	004924	IC Engine: 25-Ton Pedestal Crane (North Crane)	230	

[a] Based on the APCD 2005 Emission Inventory.
[b] An "X" is shown for engines becoming subject to Rule 333 emission limits for the first time. If no "X" appears, the engine is already subject to Rule 333 emission limits.

Company Name, Stationary Source Description, and Facility Description	Stat. Source No.	Fac. No.	Device No.	Device Name	Bhp	ICE Will Become Subject to the Emission Limits for the 1st time due to the Rule Revisions[b]
DCOR, LLC, South County/Dos Cuadras, Platform Henry	08003	08007	004939	IC Engine: 25-Ton Pedestal (North Crane)	475	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006388	IC Engine: W-2	195	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006389	IC Engine: W-3	195	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006390	IC Engine: W-8	195	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006391	IC Engine: W-4	195	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006392	IC Engine: W-12 Wastewater Inj, (added by dfg)	195	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006393	IC Engine: W-11	195	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006394	IC Engine: W-15	195	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006395	IC Engine: W-42 Wastewater Inj, (added by dfg)	195	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006396	IC Engine: B-5 Wastewater Inj, (added by dfg)	135	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006397	IC Engine: B-6	174	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006400	IC Engine: HRA #9 (not on PTO 8010)	792	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006401	IC Engine: HRA #10 (not on PTO 8010)	792	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006402	IC Engine: HRA #11	792	
E & B Natural Resources Mgt. Corp., E & B - South Cuyama, E & B IC Engines	01073	08916	006403	IC Engine: HRA #12 (not on PTO 8010)	792	
ExxonMobil Production Company, Exxon - SYU Project, Platform Hondo	01482	08009	004956	IC Engine: Pedestal Crane West	160	

Company Name, Stationary Source Description, and Facility Description	Stat. Source No.	Fac. No.	Device No.	Device Name	Bhp	ICE Will Become Subject to the Emission Limits for the 1st time due to the Rule Revisions[b]
ExxonMobil Production Company, Exxon - SYU Project, Platform Hondo	01482	08009	004957	IC Engine: Pedestal Crane East	160	
ExxonMobil Production Company, Exxon - SYU Project, Platform Harmony	01482	08018	005326	Pedestal Crane East	450	
ExxonMobil Production Company, Exxon - SYU Project, Platform Heritage	01482	08019	005350	Pedestal Crane East	450	
Greka Oil & Gas, Inc., Cat Canyon, Cat Canyon IC Engines	02658	03831	006466	Controlled IC Engine 12253 Gas Compressor (added by dfg)	225	
Greka Oil & Gas, Inc., Cat Canyon, Cat Canyon IC Engines	02658	03831	006467	Controlled IC Engine: Waukesha 110007 (Inj. #2 - added by dfg)	190	
Greka Oil & Gas, Inc., Cat Canyon, Cat Canyon IC Engines	02658	03831	006468	IC Engine: #20 6LRZ (#912330) (NSCR) (Not found in PTO 8036)	410	
Greka Oil & Gas, Inc., Cat Canyon, Cat Canyon IC Engines	02658	03831	007289	IC Engine: Compressor #1: #F3521GSI (last used in 2002, removed from permit in 2004)	747	
Greka Oil & Gas, Inc., Clark Avenue Source, Clark Avenue IC Engines	02200	04204	004178	IC Engine: #912330	186	
Greka Oil & Gas, Inc., Clark Avenue Source, Clark Avenue IC Engines	02200	04204	004179	IC Engine: #912331	186	
Lash Construction, Lash Const. (5 S. Calle Cesar Chavez), Lash Const. (5 S. Calle Cesar Chavez)	10309	10437	010082 or 107679	Diesel IC Engine (may be superseded by DID 107679)	434.5	
Mafi-Trench Corporation, Mafi-Trench, Mafi-Trench	01717	01717	001195	IC Engine: Air Compressor	456	
Pacific Operators Offshore, LLC, Pacific Operators - Carpinteria, Platform Hogan	08001	08001	004849	IC Engine: North Crane	230	
Pacific Operators Offshore, LLC, Pacific Operators - Carpinteria, Platform Houchin	08001	08002	004861	IC Engine: North Crane	230	
Pacific Operators Offshore, LLC, Pacific Operators - Carpinteria, Platform Hogan	08001	08001	007107	IC Engine: Well Service Rig	400	X

Company Name, Stationary Source Description, and Facility Description	Stat. Source No.	Fac. No.	Device No.	Device Name	Bhp	ICE Will Become Subject to the Emission Limits for the 1st time due to the Rule Revisions[b]
Pacific Operators Offshore, LLC, Pacific Operators - Carpinteria, Platform Houchin	08001	08002	007108	IC Engine: Well Service Rig	400	X
Plains Exploration & Production Company, Pt. Pedernales/Lompoc Oil Fields, Platform Irene	04632	08016	005082	IC Engine: North Crane	210	
Plains Exploration & Production Company, Pt. Pedernales/Lompoc Oil Fields, Platform Irene	04632	08016	005083	IC Engine: South Crane	197	
Purisima Hills LLC - Barham Ranch, H.P. Boyne Lease	01153	03777	005908	IC Engine: Well Pump	65	X
Purisima Hills LLC - Barham Ranch, H.P. Boyne Lease	01153	03777	005909	IC Engine: Well Pump	65	X
Purisima Hills LLC - Barham Ranch, H.P. Boyne Lease	01153	03777	005910	IC Engine: Well Pump	65	X
Purisima Hills LLC - Barham Ranch, H.P. Boyne Lease	01153	03777	005911	IC Engine: Well Pump	65	X
Purisima Hills LLC - Barham Ranch, H.P. Boyne Lease	01153	03777	005912	IC Engine: Well Pump	65	X
Purisima Hills LLC - Barham Ranch, H.P. Boyne Lease	01153	03777	009015	IC Engine: Natural Gas-Fired	65	X
SBC Resource Recovery & Waste Mgmt Div., County of Santa Barbara - Foxen Canyon, County of Santa Barbara - Foxen Canyon	03706	03706	104269	Diesel Fired IC Engine (Gen 4)	78	
SBC Resource Recovery & Waste Mgmt Div., County of Santa Barbara - Foxen Canyon, County of Santa Barbara - Foxen Canyon	03706	03706	106429	Diesel Fired IC Engine (Gen 5)	78	
Southern California Gas Company, So Cal Gas - La Goleta, La Goleta	05019	01734	001199	IC Engine: Gas Compressor # 2	650	
Southern California Gas Company, So Cal Gas - La Goleta, La Goleta	05019	01734	001200	IC Engine: Gas Compressor # 3	650	
Southern California Gas Company, So Cal Gas - La Goleta, La Goleta	05019	01734	001201	IC Engine: Gas Compressor # 4	650	
Southern California Gas Company, So Cal Gas - La Goleta, La Goleta	05019	01734	001202	IC Engine: Gas Compressor # 5	650	

Company Name, Stationary Source Description, and Facility Description	Stat. Source No.	Fac. No.	Device No.	Device Name	Bhp	ICE Will Become Subject to the Emission Limits for the 1st time due to the Rule Revisions[b]
Southern California Gas Company, So Cal Gas - La Goleta, La Goleta	05019	01734	001203	IC Engine: Gas Compressor # 6	660	
Southern California Gas Company, So Cal Gas - La Goleta, La Goleta	05019	01734	001204	IC Engine: Gas Compressor # 7	660	
Southern California Gas Company, So Cal Gas - La Goleta, La Goleta	05019	01734	001205	IC Engine: Gas Compressor # 8	660	
Southern California Gas Company, So Cal Gas - La Goleta, La Goleta	05019	01734	001206	IC Engine: Gas Compressor # 9	1100	
Southern California Gas Company, So Cal Gas - La Goleta, La Goleta	05019	01734	005666	IC Engine: Electrical Generator #1A	170	
Southern California Gas Company, So Cal Gas - La Goleta, La Goleta	05019	01734	005667	IC Engine: Electrical Generator #2A	170	
Southern California Gas Company, So Cal Gas - La Goleta, La Goleta	05019	01734	005668	IC Engine: Electrical Generator #3A	170	
Southern California Gas Company, So Cal Gas - La Goleta, La Goleta	05019	01734	005669	IC Engine: Electrical Generator #20A	144	
The Point Arguello Companies, The Point Arguello Project, Platform Harvest	01325	08013	005000	IC Engine: Crane (800A)	503	
The Point Arguello Companies, The Point Arguello Project, Platform Harvest	01325	08013	005001	IC Engine: Crane (800B)	503	
The Point Arguello Companies, The Point Arguello Project, Platform Harvest	01325	08013	005002	IC Engine: Crane (CR801)	270	
The Point Arguello Companies, The Point Arguello Project, Platform Hermosa	01325	08014	005029	IC Engine: West Crane	475	
The Point Arguello Companies, The Point Arguello Project, Platform Hermosa	01325	08014	005030	IC Engine: East Crane	475	
The Point Arguello Companies, The Point Arguello Project, Platform Hidalgo	01325	08015	005058	IC Engine: West Crane	475	
The Point Arguello Companies, The Point Arguello Project, Platform Hidalgo	01325	08015	005059	IC Engine: East Crane	475	

Company Name, Stationary Source Description, and Facility Description	Stat. Source No.	Fac. No.	Device No.	Device Name	Bhp	ICE Will Become Subject to the Emission Limits for the 1st time due to the Rule Revisions[b]
United States Air Force, Vandenberg Air Force Base, Vandenberg AFB 30 CES/CEV	01195	00201	006182	IC Engine: Electrical Generator (Building 7425)	115	
Venoco, Inc., Venoco - Carpinteria, Carpinteria Gas Plant	00027	00027	000201	Gas compressor (IR #1)	440	
Venoco, Inc., Venoco - Carpinteria, Carpinteria Gas Plant	00027	00027	000202	IC Engine: Compressor: SACS Cooper (CA-83)	1800	
Venoco, Inc., Venoco - Carpinteria, Carpinteria Gas Plant	00027	00027	000203	Gas compressor (IR #3)	440	
Venoco, Inc., Venoco - Carpinteria, Carpinteria Gas Plant	00027	00027	000204	Gas compressor (IR #4)	300	
Venoco, Inc., Venoco - Carpinteria, Carpinteria Gas Plant	00027	00027	000205	Gas compressor (IR #5)	440	
Venoco, Inc., Venoco - Carpinteria, Carpinteria Gas Plant	00027	00027	000206	Gas compressor (IR #6)	440	
Venoco, Inc., Venoco - Carpinteria, Carpinteria Gas Plant	00027	00027	008166	IC Engine: Diesel-fired	180	
Venoco, Inc., Venoco - Carpinteria, Carpinteria Gas Plant	00027	00027	100222	IC Engine: Compressor (G-1) (Was DID 009138)	220	
Venoco, Inc., Venoco - Ellwood, Platform Holly	01063	03105	002336	IC Engine: Pedestal Crane	92	
Venoco, Inc., Venoco - Ellwood, Platform Holly	01063	03105	009130	IC Engine: Drilling Rig Generator #1	803	X
Venoco, Inc., Venoco - Ellwood, Platform Holly	01063	03105	009131	IC Engine: Drilling Rig Generator #2	803	X
Venoco, Inc., Venoco - Ellwood, Platform Holly	01063	03105	009132	IC Engine: Drilling Rig Generator #3	1053	X
Venoco, Inc., Venoco - Ellwood Marine Terminal, Jovalan Barge	01085	03203	002437	IC Engine: VRU	245	
Venoco, Inc., Venoco - Ellwood Marine Terminal	01085	03203	002438	IC Engine: Generator	89	

Appendix D
Santa Barbara County
Annotated Proposed Amended Rule 102, Definitions

RULE 102. DEFINITIONS. (Adopted 10/18/1971, revised 1/12/1976, readopted 10/23/1978, revised 7/11/1989, 7/10/1990, 7/30/1991, 7/18/1996, 4/17/1997, 1/21/1999, 5/20/1999, 6/19/2003, ~~and~~ 1/20/2005, and [*date of revised rule adoption*])

These definitions apply to the entire rulebook. Definitions specific to a given rule are defined in that rule or in the first rule of the relevant regulation. Except as otherwise specifically provided in these Rules where the context otherwise indicates, words used in these Rules are used in exactly the same sense as the same words are used in Division 26 of the Health and Safety Code.

[. . .]

"Alternative Diesel Fuel" means any fuel used in a compression ignition engine that is not commonly or commercially known, sold, or represented by the supplier as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM D 975, "Standard Specification for Diesel Fuel Oils," ASTM International, or an alternative fuel, and does not require engine or fuel system modifications for the engine to operate, although minor modifications (e.g., recalibration of the engine fuel control) may enhance performance. Examples of alternative diesel fuels include, but are not limited to, biodiesel; Fischer-Tropsch fuels; emulsions of water in diesel fuel; and fuels with a fuel additive, unless:

1. the additive is supplied to the engine fuel by an on-board dosing mechanism, or
2. the additive is directly mixed into the base fuel inside the fuel tank of the engine, or
3. the additive and base fuel are not mixed until engine fueling commences, and no more additive plus base fuel combination is mixed than required for a single fueling of a single engine.

[Note 1: This definition is similar to the definition in the Airborne Toxic Control Measure for Stationary Compression Ignition Engines. It is needed because the term is used in the definition of "dual-fuel engine."]

[. . .]

"ASTM" means American Society for Testing and Materials. In 2001, the American Society for Testing and Materials officially changed its name to "ASTM International."

[Note 2: The "ASTM" term appears in several rules. Thus, consistent with the APCD policy, the definition of the "ASTM" acronym is being added to Rule 102. Also, the note after the definition recognizes the official name change to add clarity to the references of the "ASTM International" standards.]

[. . .]

"Compression Ignition Engine" means a reciprocating, internal combustion engine that is not a spark ignition engine.

[Note 3: This is modeled on the "compression-ignition" definition in 40 CFR, Part 89, Subpart A, Section 89.2. Defining the term in Rule 102 is necessary because it is used in Rule 202, Rule 333, and Rule 1201.]

[. . .]

"Derated" means any physical change to an emission unit to physically limit and restrict the equipment's power rating from the power rating specified by the manufacturer on the date of initial manufacture of the equipment.

[Note 4: The definition is similar to the San Joaquin Valley APCD definition: "De-rated Engine: An internal combustion engine which has been physically limited and restricted by permit conditions to an operational level of 50 horsepower or less." The Santa Barbara County APCD made it more general to apply to other items (e.g., boilers) in Rule 202. It is necessary to define derated in Rule 102 because Rule 202 refers to Rule 102 in its definition section.]

"**Diesel Engine**" means a ~~compression ignited four stroke engine that is operated with an exhaust stream oxygen concentration of 4 percent by volume, or greater~~ type of internal combustion engine that uses low-volatility petroleum fuel and fuel injectors and initiates combustion using compression ignition (as opposed to spark ignition that is used with gasoline engines).

[Note 5: The APCD relocated the definition of rated brake horsepower from Rule 333 and revised the definition. The revised definition is from the CARB "Glossary of Air Pollution Terms" on the CARB Web Site: http://www.arb.ca.gov/html/gloss.htm. The APCD is adding the term for clarity.]

[. . .]

"Dual-Fuel Engine" means any compression ignition engine that is engineered and designed to operate on a combination of alternative fuels, such as compressed natural gas (CNG) or liquefied petroleum gas (LPG) and diesel fuel or an alternative diesel fuel. These engines have two separate fuel systems, which inject both fuels simultaneously into the engine combustion chamber.

[Note 6: This definition is the same as the definition in the Airborne Toxic Control Measure for Stationary Compression Ignition Engines. It is necessary to include the definition in Rule 102 to clarify applicable provisions in Rule 202 and Rule 333.]

[. . .]

"Fuel" means any substance that is burned, combusted, or incinerated in an engine, boiler, heater, burner, steam generator, process heater, flare, thermal oxidizer, or any other combustion unit, and which includes, but is not limited to, gasoline, natural gas, field gas, produced gas, waste gas, methane, digester gas, landfill gas, contaminated soil/water cleanup gaseous effluent, ethane, propane, butane, liquefied petroleum gas (LPG), jet propellants, diesel fuels, and distillate fuels.

[Note 7: The APCD is adding this definition for clarity. The definition is similar to the one found in the Determination of RACT and BARCT for Stationary Spark-Ignited Internal Combustion Engines.]

"Fuel Additive" means any substance designed to be added to fuel or fuel systems or other engine-related engine systems such that it is present in-cylinder during combustion and has any of the following effects: decreased emissions, improved fuel economy, increased performance of the engine; or assists diesel emission control strategies in decreasing emissions, or improving fuel economy or increasing performance of the engine.

[Note 8: This definition is the same as the one found in the Airborne Toxic Control Measure for Stationary Compression Ignition Engines. It is necessary to clarify the definition of alternative diesel fuel.]

[. . .]

"Higher Heating Value" means the total heat liberated per mass of fuel burned (British thermal unit per pound), when fuel and dry air at standard conditions undergo complete combustion and all resulting products are brought to their standard states at standard conditions. "Gross heating value" shall have the same meaning as "higher heating value."

[Note 9: The term *higher heating value* is being added to Rule 102 because the term is used in more than one prohibitory rule. The reference to the gross heating value having the same meaning as higher heating value is added for clarity. The term "gross heating value" is found in the Rule 210, Schedule A.3.]

"Internal Combustion Engine" means an engine in which both the heat energy and the ensuing mechanical energy are produced inside the engine. Internal combustion engines include gas turbines, spark ignition, and compression ignition engines.

[Note 10: This definition is from the CARB "Glossary of Air Pollution Terms" on the CARB Web Site. The APCD is adding the term for clarity.]

[. . .]

"Portable ~~i~~Internal ~~e~~Combustion ~~e~~Engine" means any internal combustion engine that is portable, meaning it is carried or moved from one location to another in the normal course of business. Indicia of portability shall include, but are not limited to, wheels, skids, carrying handles, ~~or a~~ dolly, trailer, vessel, or platform~~, or mounting~~. "Portable internal combustion engine" does not include an engine used to propel nonroad equipment or a motor vehicle of any kind, including, but not limited to, a heavy duty vehicle. The engine is not portable if:

1. the engine or its replacement is attached to a foundation, or if not so attached, will reside at the same location for more than 12 consecutive months. The period during which the engine is maintained at a storage facility shall be excluded from the residency time determination. Any engine, such as a back-up or stand-by engine, that replace engine(s) at a location, and is intended to perform the same or similar function as the engine(s) being replaced, will be included in calculating the consecutive time period. In that case, the cumulative time of all engine(s), including the time between the removal of the original engine(s) and installation of the replacement engine(s), will be counted toward the consecutive time period; or

2. the engine remains or will reside at a location for less than 12 consecutive months if the engine is located at a seasonal source and operates during the full annual operating period of the seasonal source, where a seasonal source is a stationary source that remains in a single location on a permanent basis (at least two years) and that operates at that single location at least three months each year; or

3. the engine is moved from one location to another in an attempt to circumvent the portable residence time requirements.

[Note 11: The APCD used the ARB definition of *portable* in the Statewide Portable Equipment Registration Program (PERP) to model the revised definition of *portable internal combustion engine*.]

[. . .]

"**Rated brake horsepower**" means the ~~maximum~~continuous brake horsepower rating ~~at maximum revolutions per minute (RPM)~~ specified for the engine by the manufacturer~~. Alternately, the rated brake horsepower of an engine shall be the maximum allowable and enforceable rating specified by the District, stated in the Permit to Operate (PTO), and accepted by the engine operator~~ or listed on the original nameplate of the unit, unless otherwise physically limited and specified by a condition on the engine's Permit to Operate.

[Note 12: The APCD relocated the definition of *rated brake horsepower* from Rule 333 and revised the definition. EPA identified the *rated brake horsepower* definition as a rule deficiency in a November 1994 Technical Support Document. Their concern indicates, in part, "EPA believes the definition should specify rating as output determined by the manufacturer and listed on the nameplate, regardless of any derating." Although the revised definition may not completely address the EPA concern, it is similar to the San Joaquin Valley Unified APCD (SJV) Rule 4701 and Rule 4702 definitions. EPA approved those SJV rules into the SIP on May 18, 2004 (69 FR 28061). Thus, we do not anticipate EPA identifying the engine derating component of the definition to be a future rule deficiency.]

[Note 13: It is necessary to have the definition in Rule 102 because the term is used in Rule 202 and Rule 333.]

[. . .]

"Spark Ignition Engine" means a gasoline-fueled engine or other engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation.

[Note 14: This is similar to the definition of "spark-ignition" in 40CFR 89.2. It is necessary to have the definition in Rule 102 because the term is used in Rule 202 and Rule 333.]

[. . .]

"Specialty Equipment" means portable engines used to power equipment located in the Outer Continental Shelf or State Territorial Waters that satisfy all of the following conditions:

1. The portable engine is ineligible for registration in the State Portable Equipment Registration Program; and

2. A similar portable engine or equipment unit capable of performing the specialty work is not registered in the State Portable Equipment Registration Program or, if registered is not available for use; and

3. The portable engine/equipment unit performs a unique function or activity outside the normal scope of drilling or construction activities; and

4. The equipment will be used for less than 500 hours per stationary source in any calendar year and emit not more than 10 tons per stationary source of oxides of nitrogen, oxides of sulfur, reactive organic compounds, or particulate matter in any calendar year; and

5. Use of the equipment is not recurrent from year to year.

"Specialty Equipment Emergency Use" means that conditions giving rise to the use of the specialty equipment were due to 1) conditions beyond the reasonable control of the stationary source, including but not limited to the breakdown of essential drilling or construction equipment, and 2) the use of the specialty equipment is necessary to complete essential short-term projects.

[Note 15: The above two definitions are needed because of the newly-proposed "specialty equipment" exemption in Rule 202, Section F.5. The APCD is adding that exemption in response to an industry request. The definitions were modified after the February 13, 2008 workshop to address issues raised by the regulated community. These revisions included extending the *Specialty Equipment* definition to State Territorial Waters and adding *or construction* text to the definitions.]

[. . .]

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Appendix E
Santa Barbara County
Annotated Proposed Amended Rule 201, Permits Required

RULE 201. PERMITS REQUIRED. (Adopted 10/18/1971, revised 5/1/1972, readopted 10/23/1978, revised 7/2/1979, ~~and~~ 4/17/1997, and [*date of revised rule adoption*])

A. Applicability

This rule applies to any person who builds, erects, alters, replaces, operates or uses any article, machine, equipment, or other contrivance which may cause the issuance of air contaminants.

B. Exemptions

Exemptions to this rule appear in Rule 202 (Exemptions to Rule 201).

C. Definitions

See Rule 102 for definitions not limited to this rule. For the purposes of this rule, the following definitions shall apply:

"Erect" means the setting up, installing, or assembling of equipment that can be moved from one location to another and that must be stationary in order to operate.

D. Requirement - Authority to Construct

~~1.~~ Any person building, erecting, altering, ~~or~~ replacing, or using any article, machine, equipment or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants, shall first obtain an Authority to Construct for such construction or use from the Control Officer. An Authority to Construct issued to a source shall remain in effect until the Permit to Operate the equipment for which the application was filed is granted or denied or the application expires.

[Note 1: Adding the text "using" and "or use" is consistent with the Health and Safety Code Section 42300(a) provisions. Section D.1 is becoming Section D.]

~~2. Notwithstanding any exemption in these rules and regulations, equipment used for the dredging of waterways, except during emergencies declared by public officials in accordance with state law, or equipment used in pile driving adjacent to or in waterways, or pipe laying and derrick barges, shall obtain an Authority to Construct and a Permit to Operate when the potential to emit of such equipment per stationary source is equal to or greater than 25 tons per year of any affected pollutant during any consecutive 12 month period. The Control Officer shall not require Best Available Control Technology for such sources if federal law preempts this requirement.~~

[. . .]

[Note 2: The APCD is moving the Section D.2 provision into Rule 202, Section F.7 to group the exemptions together. The proposed revised text found in Rule 202.F.7 provides clarification on when permits are required and helps address some of the regulated community's concerns with the removal of the construction exemption (Rule 202.F.3). The proposed new Section 202.F.8 also provides NSR options for marine vessel engines associated with stationary source activities.]

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Appendix F
Santa Barbara County
Annotated Proposed Amended Rule 202, Exemptions to Rule 201

RULE 202. EXEMPTIONS TO RULE 201. (Adopted 10/18/1971, revised 5/1/1972 and 6/27/1977, readopted 10/23/1978, revised 12/7/1987, 1/11/1988, 1/17/1989, 7/10/1990, 7/30/1991, 11/05/1991, 3/10/1992, 5/10/1994, 6/28/1994, ~~and~~ 4/17/1997, and [*date of revised rule adoption*])

A. Applicability

An Authority to Construct or Permit to Operate shall not be required for equipment, operations, and activities described herein.

B. Exceptions

Notwithstanding any exemption created by this ~~Rule~~rule, any:

1. ~~e~~Equipment, activity or operations proposed by an applicant for use as an Emission Reduction Credit is not exempt.

2. Emission unit that functions for distributed electrical generation and is not certified under the regulations of the Air Resources Board is not exempt.

[Note 1: The new provision on distributed electric generation equipment is needed for consistency with the California Administrative Code, Title 17, Section 94201(d) provisions on the applicability of the California distributed generation certification program.]

[. . .]

D. General Provisions

[. . .]

5. Temporary Equipment

A permit shall not be required for temporary equipment where the projected actual aggregate emissions of all affected pollutants do not exceed 1 ton (except carbon monoxide, which shall not exceed 5 tons) and the use of each individual piece of equipment does not exceed one 60 day period in any consecutive 12 month period. Such equipment shall also meet one of the following requirements:

a. the temporary equipment is not part of an existing operating process of a stationary source; or

b. the temporary equipment replaces equipment that has qualified for a breakdown pursuant to Rule 505.

To qualify for this exemption, the owner or operator shall submit a written request to the Control Officer, who shall make a determination in writing approving or denying the request. This request shall identify the temporary equipment, its location, any equipment being replaced, and shall include the emission calculations and assumptions that demonstrate that the equipment meets the exemption criteria. The temporary project may commence as soon as the written request has been made, however, project commencement with equipment that is later found ineligible for the exemption shall constitute a violation of the District's Rules and Regulations. This exemption shall not apply to equipment used for the specific purpose to control emissions of ~~Hazardous Air Pollutants~~ Toxic Air Contaminants. The owner or operator shall pay any applicable fee pursuant to Rule 210.

See Note 2.

See Notes 3 and 4.

[Note 2: The new text on the APCO making a written determination for the exemption is needed for clarification and uniformity within Rule 202. Owners and operators seeking an exemption per Rule 202, Sections D.5, D.7, F.5, F.7, K.6, and P.14 shall file an APCD-38 Form, Request for Written Determination of Permit Exemption, along with the fee.]

[Note 3: The terminology *for the specific purpose* is added to make the exemption applicable to systems that have small amounts of TACs while requiring control systems for vapor streams that are composed of TACs to be subject to permitting. Without this change, the use of a vapor recovery system on a temporary tank would require a permit because small amounts of TACs would be directed to the vapor recovery system.]

[Note 4: The change from *Hazardous Air Pollutants* (HAPs) to *Toxic Air Contaminants* (TACs) is necessary to cover certain air pollutants (e.g., ammonia, copper compounds, diesel exhaust) that are listed as a TAC but not listed as a Hazardous Air Pollutant.]

[. . .]

7. Stationary Source Permit Exemption

A permit shall not be required for any new, modified or existing stationary source if the uncontrolled actual emissions of each individual affected pollutant from the entire stationary source are below 1.00 ton per calendar year, unless:

[. . .]

Each owner or operator ~~who desires~~ seeking this exemption shall submit ~~an~~ a written request to the Control Officer, who shall make a determination in writing approving or denying the request~~exemption request form and obtain written concurrence from the District~~. ~~A fee shall be assessed as specified in~~ The owner or operator shall pay any applicable fee pursuant to Rule 210 ~~(Schedule F)~~.

[Note 5: The reasons for these changes are discussed in Note 2.]

[. . .]

11. Where an exemption is described in this ~~Rule~~ rule for a general category of equipment, the exemption shall not apply to any component which otherwise would require a permit under the provisions of these Rules and Regulations.

[. . .]

15. For the purposes of the exemptions set forth in F.1.e; F.1.f; F.1.g; and G.1, the ratings of all engines or combustion equipment used in the same process shall be accumulated to determine whether these exemptions apply.

[Note 6: This provision clarifies that several emission units are treated as one emission unit where simultaneous operation of two or more emission units in the same process could occur to meet operation and/or system demands. This is consistent with past practice. A determination that equipment is used in the same process is based on the engineering design. For example, analysis will involve looking at the equipment's or system's maximum energy needs or demands under a worst-case scenario.

16. Notwithstanding any exemption in these rules and regulations, if the combined emissions from all construction equipment used to construct a stationary source which requires an Authority to Construct have a projected actual in excess of 25 tons of any pollutant, except carbon monoxide, in a 12 month period, the owner of the stationary source shall provide offsets as required under the provisions of Rule 804 and shall demonstrate that no ambient air quality standard would be violated.

[Note 7a: The proposed new Rule 202, Section D.16 text is essentially the same text found in the current Rule 202.F.3. Although the APCD is proposing to delete the Rule 202.F.3 exemption for engines used in construction, it is necessary to maintain the portion of the 202.F.3 text on offset requirements. The intent is to not remove large stationary source construction mitigation.]

17. No additional permit shall be required at a stationary source in the District for equipment permitted by the District for various location uses provided the following conditions are met:

    a. The owner or operator of the equipment has a valid Permit to Operate issued by the District that specifically denotes the equipment as being usable at various locations within the District and that the terms and conditions of the Permit to Operate are fully complied with.

    b. The equipment is not used to replace equipment which is part of an existing process at the stationary source.

    c. The equipment is used for repair and maintenance related purposes only.

    d. The stationary source reports all uses (including the start and end dates) and associated emissions for each use under this exemption to the APCD in their next annual report (or semi-annual report for Part 70 sources).

[Note 7b: The APCD is adding this provision in response to comments from industry.]

[. . .]

F. Internal Combustion Engines

1. A permit shall not be required for internal combustion engines if any of the following conditions is satisfied:

   a. Engines used in aircraft and in locomotives;

   b. Engines used to propel marine vessels, except vessels associated with a stationary source which shall be regulated as specified under the provisions of Regulation VIII.

   c. Engines used to propel vehicles, as defined in Section 670 of the California Vehicle Code, but not including any engine mounted on such vehicles that would otherwise require a permit under the provisions of these Rules and Regulations.

   d. Spark ignition piston-type internal combustion engines used exclusively for emergency electrical power generation or emergency pumping of water for flood control or firefighting if the engine operates no more than 200 hours per calendar year, and where a record is maintained and is available to the District upon request; the record shall list the identification number of the equipment, the number of operating hours on each day the engine is operated and the cumulative total hours.

   e. Compression ignition engines with a rated brake horsepower of less than 50 ~~or less~~. No compression ignition engine otherwise subject to permit shall be exempt because it has been derated.

[Note 8: The addition of the word "rated" before brake horsepower is needed for consistency with the new rated brake horsepower definition in Rule 102. The cutoff is being revised from *50 brake horsepower (bhp) or less* to *less than 50 bhp*. This is necessary for consistency with the California Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater (California Code of Regulations, Title 17, Sections 93116 et seq.).]

[Note 9: The new provision on permitting derated equipment is necessary to ensure that the derating method is enforceable.]

   f. Spark ignition piston-type internal combustion engines with a ~~manufacturer's maximum rating of 100~~ rated brake horsepower of less than 50. ~~or less or gas turbine engines with a maximum heat input rate of 3 million British thermal units per hour or less at standard conditions, except if the total horsepower of individual spark ignition piston-type internal combustion engines less than 100 brake horsepower but greater than 20 brake horsepower at a stationary source, as defined in Rule 102, exceeds 500 bhp in which case the individual engines are not exempt.~~ Notwithstanding the previous sentence, none of the individual engines in the range of less than 50 but greater than 20 rated brake horsepower are exempt if such engines at a stationary source have a total rated brake horsepower rating of 400 or greater. (See Notes 10 and 11; See Note 12; See Note 13.)

   No spark ignition piston-type internal combustion engine otherwise subject to permit shall be exempt because it has been derated. Spark ignition piston-type ~~Internal~~ internal combustion engines exempt under other provisions of Section F and permitted spark ignition piston-type internal combustion engines ~~do~~ shall not count toward the ~~500~~ 400 ~~bhp~~ rated brake horsepower aggregate limit. (See Note 14.)

[Note 10: The addition of the word "rated" before *brake horsepower* is needed for consistency with the new *rated brake horsepower* definition in Rule 102.]

[Note 11: Less than 50 bhp Threshold for the Single-Engine Exemption for Spark Ignition Piston-Type Engines: The exemption, on a single-engine basis, is being changed from the *permitting* threshold of *greater than 100 brake horsepower* to *50 brake horsepower and greater*. Lowering the single-engine *exemption* threshold from 100 to less than 50 brake horsepower is consistent with an EPA-identified deficiency, requirements in adjoining APCDs, and the ARB Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology for Stationary Spark-Ignited Internal Combustion (ARB RACT/BARCT Determination).]

[Note 12: The exemption on gas turbine engines is being moved to Section F.1.g.]

[Note 13: Exemption for Sources with Multiple Spark Ignition Piston-Type Engines: For situations where there are several spark ignition engines at the same stationary source, the proposed revised provision will:

1. **Change the *less than 100 but greater than 20 brake horsepower* range for assessing the total rated brake horsepower sum to *less than 50 but greater than 20 brake horsepower*.**

2. **Change the amount for the permitting threshold from *500 brake horsepower* to *400 brake horsepower*.**

Revising the range to be greater than 20 to less than 50 brake horsepower is consistent with permitting engines rated 50 brake horsepower and greater. The APCD is setting the "gatekeeper" figure at 400 brake horsepower based on the distribution of engines in the 2005 inventory.]

[Note 14: The new provision on permitting derated equipment is necessary to ensure that the derating method is enforceable. Indicating permitted engines are not counted towards the 400 brake horsepower aggregate limit is appropriate because these engines already require permitting.]

g. Gas turbine engines with a maximum heat input rating of 3 million British thermal units per hour or less at standard conditions. No gas turbine engine otherwise subject to permit shall be exempt because it has been derated. For the purposes of this section, power generating microturbines fired on natural gas which meets General Order 58-A of the Public Utility Commission that have been certified by the Air Resources Board to meet the applicable distributed generation standards certified by a current Air Resources Board Executive Order are not subject to the provisions of Section D.15 if the potential annual emissions of each affected pollutant does not exceed 1 ton (except carbon monoxide, which shall not exceed 5 tons).

See Note 15.
See Note 16.
See Note 17.

[Note 15: This sentence is currently within Rule 202.F.1.f. For clarity, it is being moved to a separate section.]

[Note 16: The new provision on permitting derated equipment is necessary to ensure that the derating method is enforceable.]

[Note 17: This text allows for limited "grouping/multi-packing" of microturbine engines under certain conditions. The greater than *1 ton per year* (except CO, which is *5 tons per year*) pollutant threshold stems from previously EPA-approved levels for APCD exemptions.]

2. A permit shall not be required for portable engines registered in the Statewide Registration Program, pursuant to California Code of Regulations, title 13, section 2451 *et seq.* and Health and Safety Code Section 41753 *et seq.* Notwithstanding this provision, the requirements of Section ~~F.3~~ D.16 shall apply to such portable engines ~~and the requirements of Section F.6 shall apply to such portable engines used in the outer continental shelf~~. All operators using this permit exemption shall comply with the State Portable Equipment Registration Program and Air Resources Board-issued registration.

See Notes 18 and 19.

See Note 20.

[Note 18: The replacement of the reference to Section F.3 with Section D.16 is needed because the Section F.3 provision on construction equipment offset requirements is being moved to Section D.16.]

[Note 19: The deletion of the Section F.6 text is necessary because the exemption for well drilling in state territorial waters (STW) and the outer continental shelf (OCS) is being deleted.]

[Note 20: The APCD is adding this provision to ensure that all operators (i.e., those located onshore, in STW, and the OCS) of engines registered in the State Portable Equipment Registration Program (PERP) availing themselves to the exemption comply with the requirements of the PERP and the ARB-issued registration for their engine.]

3. ~~A permit shall not be required for engines used in construction activities. However, if the combined emissions from all construction equipment used to construct a stationary source which requires an Authority to Construct have the potential to exceed 25 tons of any pollutant, except carbon monoxide, in a 12 month period, the owner of the stationary source shall provide offsets as required under the provisions of Rule 804 and shall demonstrate that no ambient air quality standard would be violated.~~

[Note 21: Rule 202 will no longer provide an exemption for construction engines. The owners and operators of such engines should be registering them in the Statewide Portable Equipment Registration Program. The construction engine offset provision is being moved to the general provisions of Rule 202 (new Section D.16).]

~~4.~~ A permit shall not be required for engines used for aircraft shows or to power amusement rides at seasonal or special occasion shows, fairs, expositions, circuses or carnival events, provided that the duration of such event is less than 18 days in any calendar year.

~~5~~4. A permit shall not be required for engines with a rated brake horsepower of less than 50 ~~bhp~~ used:

a. for military tactical support operations including maintenance and training for such operations;

b. to power temperature and humidity control systems on cargo trailers used to transport satellites and space launch equipment;

c. exclusively for space launch facility support and which power hoists, jacks, pulleys, and other cargo handling equipment permanently affixed to motor vehicles or trailers pulled by motor vehicles.

[Note 22: This change is needed to eliminate the *bhp* acronym.]

~~6~~5. A permit shall not be required for ~~drilling~~ specialty equipment~~, used in state waters or in the outer continental shelf provided the emissions from such equipment are less than 25 tons per stationary source of any affected pollutant during any consecutive 12 month period.~~ To qualify for this exemption, the owner or operator of the stationary source shall submit a written request to the Control Officer, who shall make a determination in writing approving or denying the request. The owner or operator shall pay any applicable fee pursuant to Rule 210. For specialty equipment emergency use, operations may commence as soon as the written request has been made; however, operation of equipment which is later found ineligible for the exemption shall constitute a violation of the District's Rules and Regulations.

[Note 23: Rule 202 will no longer provide a general exemption for offshore drilling equipment. The owners of *portable* engines should be registering them in the Statewide Portable Equipment Registration Program. Owners of existing *stationary* well drilling engines located on the platforms have 90 days to submit a PTO application per Rule 202.E.]

[Note 24: Industry requested that Rule 202 include an exemption for specialty equipment due to the loss of the drilling exemption. Additional provisions have been added for "specialty equipment" and "specialty equipment emergency use."]

~~7~~6. An internal combustion engine which powers an item of equipment identified as exempt in any other part of this ~~Rule~~ rule is not exempt unless the engine qualifies for an exemption pursuant to this rule.

7. A permit shall not be required for ~~Notwithstanding any exemption in these rules and regulations, equipment used for the dredging of waterways, except during emergencies declared by public officials in accordance with state law, or~~ equipment, including associated marine vessels, used ~~in~~ for pile driving adjacent to or in waterways, or cable and pipe-laying vessels/barges or ~~and~~ derrick barges~~, shall obtain an Authority to Construct and a Permit to Operate when~~ if the potential to emit of such equipment per stationary source is less ~~equal to or greater~~ than 25 tons per year of any affected pollutant during any consecutive 12 month period. The Control Officer shall not require Best Available Control Technology for such sources if federal law preempts this requirement. To qualify for this exemption, the owner or operator of the stationary source shall submit a written request for exemption to the Control Officer, who shall make a determination in writing approving or denying the request. The request shall identify the equipment, its location, and shall include the emission calculations and assumptions that demonstrate that the equipment meets the exemption criteria. The owner or operator shall pay any applicable fee pursuant to Rule 210. Alternatively, an owner or operator of the stationary source may qualify for an exemption from the New Source Review provisions of Regulation VIII by obtaining an Authority to Construct and Permit to Operate which limits the potential to emit of such equipment to less than 25 tons per year of any affected pollutant during any consecutive 12 month period.

[Note 25: The APCD relocated the Rule 201.D.2 provision here at the request of industry to include this exemption with other exemptions. The proposed revised

text provides clarification on when permits are required and helps address some of the regulated community's concerns with the removal of the construction exemption (Rule 202.F.3). It provides stationary sources with the ability to exempt qualifying equipment from the requirement to obtain an ATC under Regulation VIII.]

8. For purposes of Regulation VIII, the following shall not be subject to New Source Review: Marine vessel engines (propulsion engines, auxiliary engines and permanently affixed support engines) associated with construction, maintenance, repair and/or demolition activities at a stationary source provided the duration of the activities do not exceed 12 consecutive months and the potential to emit of such engines per stationary source is less than 10 tons per stationary source of oxides of nitrogen, oxides of sulfur, reactive organic compounds or particulate matter. To qualify for this exemption, the owner or operator of the stationary source shall submit a written request for exemption to the Control Officer, who shall make a determination in writing approving or denying the request. The request shall identify the marine vessels, project activities, duration, and shall include the emission calculations and assumptions demonstrating that the engines meet the exemption criteria. The owner or operator shall pay any applicable fee pursuant to Rule 210. Alternatively, an owner or operator of the stationary source may qualify for an exemption by obtaining an Authority to Construct and Permit to Operate which limits the potential to emit of such equipment to less than 10 tons per year. Such Authority to Construct/Permit to Operate shall be exempt from Regulation VIII.

[Note 26: With the removal of the construction exemption (202.F.3.), engines used to propel marine vessels associated with a stationary source construction project will need to be permitted (see 202.F.1.b). The addition of new Rule 202.F.8 will help address some of the regulated community's concerns with the removal of the construction exemption.]

G. Combustion Equipment (Other than Internal Combustion Engines)

Notwithstanding the listed exemptions, any collection of articles, machines, equipment or other contrivances within each listed equipment category at a stationary source that has aggregate emissions in excess of 25 tons per calendar year of any affected pollutant is not exempt.

1. Combustion equipment with a maximum heat input of less than or equal to two (2) million British thermal units per hour is exempt from permit requirements if fired exclusively with one of the following:

   a. Natural or produced gas which meets General Order 58-A of the Public Utility Commission,

   b. Liquefied petroleum gas, which meets Gas Processors Association Standards,

   c. A combination of natural or produced and liquefied petroleum gas, meeting the requirements of subdivisions (a) and (b) above.

   Combustion equipment with a maximum heat input rate of 1 million British thermal units per hour or less is exempt and does not count towards the 25 tons per calendar year stationary source exemption threshold listed above ~~in this paragraph,~~ provided the equipment is fired exclusively with fuel listed above in a, b, or c ~~listed above in this paragraph~~. No combustion equipment otherwise subject to permit shall be exempt because it has been derated.

[Note 27: The text has been revised for consistency and clarity. The last sentence is added to ensure that the derating method is enforceable.]

2. Combustion equipment (other than internal combustion engines) which provides heat energy to any item of equipment identified as exempt in any other part of this ~~Rule~~rule, is not exempt unless ~~fired exclusively with one of the fuels listed in G.1.a., G.1.b., or G.1.c.~~ the combustion equipment is exempt as specified in G.1.

[Note 28: This section is being revised for consistency and clarity.]

[. . .]

I. Coatings Applications Equipment and Operations

The following listed coating applications equipment and operations is exempt from permit requirements. Notwithstanding the listed exemptions, any collection of articles, machines, equipment or other contrivances within each listed equipment category at a stationary source that has aggregate emissions in excess of 10 tons per calendar year of any affected pollutant is not exempt.

[. . .]

5. ~~Polyurethane powder~~ Powder coating operations, provided the powder coating material reactive organic compound content is equal to or less than five percent, by weight.

[Note 29: At the request of industry, the APCD is revising this exemption to include all powder coating materials with an ROC content not exceeding five percent by weight.]

[. . .]

K. Food Processing and Preparation Equipment

The following listed food processing and preparation equipment is exempt from permit requirements. Notwithstanding the listed exemptions, any collection of articles, machines, equipment or other contrivances within each listed equipment category at a stationary source that has aggregate emissions in excess of 10 tons per calendar year of any affected pollutant is not exempt.

[. . .]

7. Fermentation, aging, and bottling process operations conducted at wineries, breweries, distilleries and similar facilities, provided the projected actual emissions from such operations for each individual affected pollutant from the entire stationary source are below 1.00 ton per calendar year. To qualify for this exemption, the owner or operator shall submit a written request to the Control Officer, who shall make a determination in writing approving or denying the request. The owner or operator shall pay any applicable fee pursuant to Rule 210.

[Note 30: Wineries, breweries, and distilleries have been considered exempt per Rule 202.D.7 (the one ton per year exemption). The APCD proposes this separate exemption to provide a stand-alone exemption for such activities.]

[. . .]

L. General Utility Equipment and Operations

The following listed general utility equipment and operations is exempt from permit requirements. Notwithstanding the listed exemptions, any collection of articles, machines, equipment or other

contrivances within each listed equipment category at a stationary source that has aggregate emissions in excess of 10 tons per calendar year of any affected pollutant is not exempt.

[. . .]

15. Notwithstanding G.2 of this rule, portable steam cleaning/pressure washing equipment with maximum heat input rating less than 1 million ~~Btu/hr~~ British thermal units per hour fired exclusively on diesel fuel.

16. Notwithstanding G.2 of this rule, portable water heaters used exclusively for underwater diving activities with a maximum heat input rating less than 1 million British thermal units per hour fired exclusively on diesel fuel.

[Note 31: At the request of industry, the APCD is adding an exemption for water heaters that provide underwater divers with heated water to prevent hypothermia.]

[. . .]

P. Miscellaneous Equipment and Operations

The following miscellaneous equipment and operations is exempt from permit requirements. Notwithstanding the listed exemptions, any collection of articles, machines, equipment or other contrivances within each listed equipment category at a stationary source that has aggregate emissions in excess of 10 tons per calendar year of any affected pollutant is not exempt.

[. . .]

14. For purposes of Regulation VIII, the following shall not be subject to New Source Review: Marine vessel engines (propulsion engines, auxiliary engines and permanently affixed support engines) associated with launch vehicle recovery operations for the Missile Defense Agency's Airborne Laser program provided the potential to emit is less than 5 tons per year of oxides of nitrogen, oxides of sulfur, reactive organic compounds or particulate matter. To qualify for this exemption, the owner or operator of the stationary source shall submit a written request for exemption to the Control Officer, who shall make a determination in writing approving or denying the request. The request shall identify the marine vessels, project activities, duration, and shall include the emission calculations and assumptions demonstrating that the engines meet the exemption criteria. The owner or operator shall pay any applicable fee pursuant to Rule 210. Alternatively, an owner or operator of the stationary source may qualify for an exemption by obtaining an Authority to Construct and Permit to Operate which limits the potential to emit of such equipment to less than 5 tons per year. Such Authority to Construct/Permit to Operate shall be exempt from Regulation VIII.

[Note 32: The APCD is adding this exemption in response to a request from Vandenberg Air Force Base.]

[. . .]

U. Solvent Application Equipment and Operations

The following solvent application equipment and operations is exempt from permit requirements. Notwithstanding the listed exemptions, any collection of articles, machines, equipment or other contrivances within each listed equipment category at a stationary source that has aggregate emissions in excess of 10 tons per calendar year of any affected pollutant is not exempt.

[. . .]

3. Equipment used in wipe cleaning operations, provided that the solvents used do not exceed 55 gallons per year per stationary source.

To qualify for this exemption, the owner or operator shall maintain records of the amount (gallons per year) of solvents used at the stationary source for each calendar year. See Note 33.

These records shall be ~~kept~~ maintained on site for ~~a minimum of~~ at least 3 years and be made available to the District on request. Thereafter, the records shall be maintained either on site or readily available for expeditious inspection and review for an additional 2 years. See Note 34.

Solvents meeting the criteria of 2.b. or c. above do not contribute to the 55 gallons per year per stationary source limitation. See Note 33.

[Note 33: The *per stationary source* and *at the stationary source* text is being added for clarity. Specifying that the exemption applies on a stationary source basis is consistent with the legislative intent when this provision was added in 1997.]

[Note 34: Changes to the record retention provisions are consistent with the EPA policy.]

[. . .]

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Appendix G
Santa Barbara County
Annotated Proposed Amended Rule 333, Control of Emissions from Reciprocating Internal Combustion Engines

RULE 333. CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES. (Adopted 12/03/1991, revised 12/10/1991, ~~and~~ 4/17/1997, and [*date of revised rule adoption*])

A. Applicability

~~1.~~ The provisions of this rule shall apply to ~~all~~ any engine~~s~~ with a rated brake horsepower of 50 or greater ~~and which are fueled by natural gas, field gas, liquefied petroleum gas, diesel fuel, gasoline, or any other liquid fuel~~.

[Note 1: These changes make the rule applicable to any engine rated at 50 brake horsepower or greater without any reference to the fuel burned.]

B. Exemptions

1. ~~Notwithstanding A.1., t~~The requirements of this ~~R~~rule shall not apply to:

a. ~~Engines~~Spark ignition engines operating on gaseous fuel consisting of 75 percent or more of landfill gas on a volume basis determined by annual fuel use. To qualify for this exemption written documentation ~~must~~ shall be submitted with the Authority to Construct application ~~to~~ and approved by the Control Officer. The documentation must describe the fuel meters used, ~~and~~ the level of accuracy of the fuel meters, and calculations to correct volumes to standard conditions to demonstrate compliance. Separate fuel meters shall be used ~~which~~ that measure~~s~~ the volumes ($~~ft^3~~$ cubic feet) of landfill gas ~~used~~ and ~~a separate fuel meter for the volume (ft^3)~~ of all other ~~gases~~ gaseous fuel used. Fuel usage records shall be maintained identifying the volume of landfill gas and the volume of ~~natural gas~~ all other gaseous fuel used annually. The following method shall be used to determine the ~~75~~ landfill gas ~~percent~~ percentage on a volume basis:

$$\text{~~Percent of Fuel use~~ Landfill Gas Percentage} = \frac{\text{Volume in } ~~ft^3~~ \text{ cubic feet of landfill gas consumed annually}}{\text{Total Volume in } ~~ft^3~~ \text{ cubic feet of all } ~~gas~~ \text{ gaseous fuel consumed annually}} \times 100$$

The volumes in the above equation shall be corrected for standard conditions.

[Note 2: These changes add clarity, improve grammar, and correct the equation terms.]

b. Engines that are exempt from permit under the provisions of Rule~~s~~ 202, Exemptions to Rule 201.

[Note 3: This is a minor change for clarity. EPA suggested that this exemption be removed for consistency. Instead of deleting this exemption, the APCD has achieved consistency by changing the Rule 202 permit exemption threshold (as explained further in Appendix A, page A-2, EPA Item 1).]

c. Any derated engine having a maximum allowable and enforceable output rating of less than 50 brake horsepower, provided such rating is specified by the District in an Authority to Construct or Permit to Operate and accepted by the engine owner or operator.

[Note 4: Providing an exemption for these engines is consistent with the "applicability" provision in the ARB Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology for Stationary Spark-Ignited Internal Combustion (ARB RACT/BARCT Determination).]

d. Any compression ignition emergency standby engines, as defined under California Code of Regulations, Title 17, Section 93115, Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines.

[Note 5: The exemption recognizes that these emergency compression ignition engines are subject to the state Airborne Toxic Control Measure for Stationary Compression Ignition Engines and are low use engines.]

2. ~~Engines which operate~~ Any engine that has a total aggregated operational period less than 200 hours per calendar year ~~are~~ is exempt from ~~Sections D., E., F., and G.~~ the requirements of this rule, with the exception of the engine identification requirement in Section D.1, the elapsed operating time meter requirement in Section D.2, the recordkeeping provisions in Section J.3, and the compliance schedule provisions in Section K. ~~To qualify for this exemption, the engine owner or operator shall maintain and record in a log, as required in Section H, the engine hour meter reading every first working day of each calendar quarter.~~ The hours per year operating period of a relocated engine that performs the same function as the engine it displaced will be included in calculating the total aggregated operating period for determining applicability of this exemption.

[Note 6A: The Airborne Toxic Control Measure for Stationary Compression Ignition Engines (California Code of Regulations, Title 17) Section 93115.3(j) has a low-use exemption for prime engines operating no more than 20 hours per year. Thus, a compression ignition engine may be exempt from Rule 333, but not the ATCM.]

[Note 6B: The requirements to use an elapsed operating time meter and to perform recordkeeping exist in the current rule text (Sections 333.B.2 and 333.H). The requirements to provide a method for engine identification, document engine relocations, and adhere to a compliance schedule are new. These are added to improve substantiation of exemption claims.]

3. Section G requirements for a Compliance Plan shall not be applicable to any compression ignition engines that are subject to an exhaust emission standard in the:

a. California Code of Regulations, Title 13, Section 2423, for off-road engines, or

b. 40 CFR, Part 89, for nonroad compression ignition engines.

[Note 7: The APCD has determined that compression ignition engines subject to State or Federal requirements in "a" and "b" above do not need a compliance plan.]

C. Definitions

See Rule 102 for definitions not limited to this rule. For the purpose of this ~~R~~rule, the following definitions apply:

[Note 8: The addition is made for rule clarification. Numerous engine-related terms are being added to Rule 102 because they appear in Rule 202 and Rule 333.]

"Air-balanced pumping engine" means a noncyclically-loaded engine powering a well pump, with the pump using compressed air in a cylinder under the front of the walking beam to offset the weight of the column of rods and fluid in the well, eliminating the need for counterweights.

[Note 9: This definition is needed to clarify the definition of *noncyclically-loaded engine*.]

"Beam-balanced pumping engine" means a cyclically-loaded engine powering a well pump, with the pump counterweight on the back end of the walking beam. The counterweight is moved mechanically without a cylinder supplying air pressure.

"Crank-balanced pumping engine" means a cyclically-loaded engine powering a well pump, with the pump counterweight attached to a gearbox which is attached to the walking beam with a pitman arm. The counterweight is moved mechanically, in a circular motion, without a cylinder supplying air pressure.

[Note 10: The two preceding definitions are needed to clarify the *cyclically-loaded engine* definition.]

"**Cyclic~~al~~ly-loaded engine**" means an engine that under normal operating conditions has an external load that varies ~~in shaft load~~ by 40 percent or more of rated brake horsepower during any load cycle or ~~recurrent periods of 30 seconds or less, or~~ is used to power ~~an oil~~ a well reciprocating pump~~ing unit~~ including beam-balanced or crank-balanced pumps. Engines powering air-balanced pumps are noncyclically-loaded engines.

[Note 11: The APCD is replacing the existing "cyclic engine" term with the "cyclically-loaded engine" term and relocating the term to be in alphabetical order. The definition has also been revised for clarity. Use of the "cyclically-loaded engine" term is consistent with the ARB RACT/BARCT Determination. An engine being classified as a cyclically- or noncyclically-loaded engine is strictly dependent on its external load in a particular service.]

~~1.~~ **"Engine"** means any spark or compression ~~ignited~~ ignition engine in which the pistons are contained within a cylinder and move back and forth in a straight line.

~~2. "**Cyclic engine**" means an engine that under normal operating conditions varies in shaft load by 40 percent or more of rated brake horsepower during recurrent periods of 30 seconds or less, or is used to power an oil well reciprocating pumping unit.~~

[Note 12: The APCD relocated the definition of *cyclic engine* to put the definitions into alphabetical order, changed the term to *cyclically-loaded engine*, and modified the definition.]

~~3. "**Noncyclic engine**" means any engine which is not a cyclic engine.~~

[Note 13: The APCD relocated the definition of *noncyclic engine* to put the definitions into alphabetical order, changed the term to *noncyclically-loaded engine*, and modified the definition.]

"Exhaust controls" means any device or technique used to treat an engine's exhaust to reduce emissions, and include (but are not limited) to catalysts, afterburners, reaction chambers, and chemical injectors.

[Note 14: The addition of the *exhaust controls* term is needed to clarify alternative compliance provisions available when using an exhaust control (i.e., requirements in lieu of meeting the exhaust concentration limits).]

~~4.~~ "**Existing engine**" means an engine ~~which~~ that by ~~December 3, 1991~~ [*date of revised rule adoption*];

~~a~~1. has been issued a valid ~~ATC~~ Authority to Construct, ~~or PTO~~ Permit to Operate, or Exemption to a Permit to Operate (or listed as *exempt* on an Authority to Construct or Permit to Operate) pursuant to District rules and regulations; or

~~b~~2. has been identified in an application for an ~~ATC~~ Authority to Construct submitted to and deemed complete by the District; or

~~c~~3. ~~is an identical replacement as defined in Rule 202 A. (5) for an engine defined in Section C.4.a.~~ has been operated in Santa Barbara County as exempt and now requires a Permit to Operate because of a Rule 202 exemption change effective [*date of revised rule adoption*].

[Note 15: Changes to the above three sections are needed to improve clarity. Also, the references to *Exemption to a Permit to Operate* and *listed as exempt on an Authority to Construct or Permit to Operate* are added to address engines that were installed at the time of adoption of the amended rule. The terms *new engine* and *existing engine* are necessary to determine compliance schedules for this amended rule.]

~~5. "**New engine**" is an engine which is not an existing engine.~~

[Note 16: The term *new engine* is relocated to put the definitions into alphabetical order.]

~~6. **"Field gas"** means gas which does not meet the standards as published by the Public Utilities Commission for natural gas (37 California Code of Regulations 589).~~

[Note 17: The APCD is deleting this term as it is no longer used in Rule 333.]

"Four-stroke engine" means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

[Note 18: The term "four-stroke engine" is used in the definitions for "lean-burn engine" and "rich-burn engine." Both ARB and EPA noted that a diesel engine is also a "lean-burn" engine and the existing rule emission limits were not clear. The addition of the *four-stroke engine* term will help clarify the different engine classifications and their emission limits.]

~~7.~~ "**Lean-burn engine**" means ~~a spark-ignited or compression ignited, Otto-cycle, Diesel cycle or~~ any two-stroke or four-stroke engine where the manufacturer's recommended operating air-to-fuel ratio

divided by the stoichiometric air-to-fuel ratio is greater than 1.1. Any existing engine where there are no manufacturer's recommendations regarding the air-to-fuel ratio will be considered a lean-burn engine if the excess oxygen content of the exhaust at full load conditions ~~that is operated with an exhaust stream oxygen concentration of~~ is greater than ~~4~~ 2 percent by volume~~, or greater~~. Where exhaust control is employed on such an existing engine, ~~The~~ the exhaust gas oxygen content shall be determined from the uncontrolled exhaust stream. Any engine modification that changes any rich-burn engine to a lean-burn engine or vice versa requires approval from the Control Officer in the form of a permit modification.

[Note 19: The term "lean-burn engine" has been modified to address EPA and ARB concerns and definitions.]

"**New engine**" is an engine that is not an existing engine.

[Note 20: The *new engine* definition has been relocated to be in alphabetical order.]

~~"~~"**Noncyclically-loaded engine**" means any engine which is not a cyclically-loaded engine.

[Note 21: The APCD relocated the definition of noncyclic engine here, changed the term to noncyclically-loaded engine and revised the definition.]

~~8. **"Operating engine"** means an engine that is operating and consuming fuel for its intended application a minimum of 150 hours for each month during the 12 consecutive month period prior to the adoption of this Rule as certified by the engine owner or operator.~~

[Note 22: The APCD is deleting this term as it is will no longer used in the revised Rule 333.]

~~9. "**Rated brake horsepower**" means the maximum brake horsepower rating at maximum revolutions per minute (RPM) specified for the engine by the manufacturer. Alternately, the rated brake horsepower of an engine shall be the maximum allowable and enforceable rating specified by the District, stated in the Permit to Operate (PTO), and accepted by the engine operator.~~

[Note 23: The *rated brake horsepower* definition is being modified and relocated into Rule 102, Definitions.]

"ppmv" means parts per million by volume, dry.

[Note 24: This is a new definition that is added to clarify the units used for mass rate emission limits and monitoring/testing results.]

~~10.~~ **"Rich-burn ~~E~~engine"** means ~~a spark ignited, Otto cycle, or a~~ any spark ignition, four-stroke ~~naturally aspirated~~ engine where the manufacturer-recommended operating air-to-fuel ratio divided by the stoichiometric air-to-fuel ratio is less than or equal to 1.1. Any existing engine where there are no manufacturer's recommendations regarding the air-to-fuel ratio will be considered a rich-burn engine if the excess oxygen content of the exhaust at full load conditions ~~that is operated with an exhaust stream oxygen concentration of~~ is less than or equal to ~~4~~ 2 percent by volume. Where exhaust control is employed on such an existing engine, ~~The~~ the exhaust gas oxygen content shall be determined from the uncontrolled exhaust stream. ~~Additionally, any engine which is designated as a rich burn engine on a District Permit on the date of rule adoption shall be a rich burn engine.~~ Any engine modification that changes any rich-burn engine to a lean-burn engine or vice versa requires approval from the Control Officer in the form of a permit modification.

[Note 25: The term "Rich-burn engine" has been modified to address EPA and ARB concerns and definitions.]

~~11. "**Diesel Engine**" means a compression ignited four stroke engine that is operated with an exhaust stream oxygen concentration of 4 percent by volume, or greater.~~

[Note 26: The *diesel engine* definition is being modified and relocated into Rule 102, Definitions.]

"Stoichiometric air-to-fuel ratio" means the chemically correct air-to-fuel ratio where all fuel and all oxygen in the air and fuel mixture will be consumed.

[Note 27: The "stoichiometric" term is used in the definitions for "lean-burn engine," "rich-burn engine," and "two-stroke engine," which are being revised to address ARB and EPA-identified deficiencies.]

"Two-stroke engine" means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of the stoichiometric air-to-fuel ratio.

[Note 28: This term is used in the definition of "lean-burn engine."]

D. Requirements – Engine Identification, Meters, and Continuous Monitoring Systems

The owner or operator of any engine subject to this rule shall ensure each engine meets the following requirements in accordance with the compliance schedule specified in Section K.

1. Any engine subject to this rule shall have a permanently affixed plate, tag, or marking listing:

   a. the engine's make, model, and serial number; or

   b. the owner's or operator's unique identification number.

   The plate, tag, or marking shall be made accessible and legible.

[Note 29: This section allows for expedited and efficient engine identification.]

2. Each engine shall be equipped with a nonresettable elapsed operating time meter and the meter shall be maintained in proper operating condition.

[Note 30: This is a recommendation from the ARB RACT/BARCT Determination.]

3. Each engine shall be equipped with a nonresettable fuel meter or, where approved by the Control Officer in writing, an alternative device, method, or technique for determining fuel consumption. The fuel meter shall be calibrated periodically pursuant to the recommendations of the manufacturer and shall be maintained in proper operating condition.

[Note 31: This is a recommendation from the ARB RACT/BARCT Determination. Alternative techniques must be approved by the Control Officer.]

4. Engines in the following category shall be equipped with a continuous oxides of nitrogen and oxygen monitoring system approved by the Control Officer:

New engines rated at 1,000 brake horsepower or greater that:

a. are installed on or after [*date of revised rule adoption*], and

b. are subject to the emission limits specified in Section E, and

c. have Permits to Operate allowing operations in excess of 2,000 hours per year.

This system shall determine and record exhaust gas oxides of nitrogen concentrations in parts per million by volume (dry), corrected to 15 percent oxygen. The continuous monitoring system may be a continuous emissions monitoring system or an alternative approved by the Control Officer. Alternatives to a continuous emissions monitoring system must be submitted to and approved by the Control Officer. Continuous emission monitoring systems shall meet the District Continuous Emission Monitoring Protocol (1992) and applicable federal requirements described in 40 CFR Part 60. These include the performance specifications found in Appendix B, Specification 2, the quality assurance requirements found in Appendix F, and the reporting requirements of Parts 60.7(c), 60.7(d), and 60.13.

The monitoring system shall have data gathering and retrieval capability as approved by the Control Officer. All data collected by the monitoring system shall be maintained for at least two years and made available for inspection by the Control Officer. Any Control Officer approved continuous monitoring system for oxides of nitrogen, carbon monoxide, and oxygen shall suffice in lieu of the quarterly monitoring required in Section F.3.

[Note 32: The continuous monitoring system provisions stem from the ARB RACT/BARCT Determination. Based on input from the regulated community, the APCD modified the provision to apply to only engines installed on or after the date of the revised rule adoption. Quarterly NOx box testing will not be required for engines equipped with a continuous monitoring system approved by the APCO.]

~~D~~E. Requirements - Emission Limits

Owners or operators of engines shall meet the following requirements ~~based on biennial source testing,~~ in accordance with the compliance schedule set forth in Section ~~I~~K:

[Note 33: The *biennial source testing* text is unnecessary because compliance with the emission limits is not based solely on source testing. Compliance determinations are based on various methods, including portable analyzer tests, readings of parameters established to show compliance, "method" tests, and, possibly CEMs.]

1. ~~Noncyclic Rich~~ Rich-Burn Noncyclically-Loaded Spark Ignition Engines

a. The emission concentrations, corrected for oxygen, from any such engine ~~Rich burn noncyclic engines~~ shall not exceed the following ~~concentration~~ limits ~~corrected for oxygen~~:

	Limit (~~ppmV~~ppmv at 15 percent oxygen)	
Pollutant	**~~15% Oxygen~~**	**~~3% Oxygen~~**
NOx	50	~~152~~
ROC	250	~~758~~
CO	4,500	~~13,653~~

[Note 34: The APCD is specifying all emission limit figures corrected to 15% oxygen. Thus, all the references to 3% oxygen corrected figures are being deleted. The limits shown above are consistent with the ones listed in the ARB RACT/BARCT Determination (Table A-1) for the engine classification. However, emission limits in federal requirements (40CFR) may be more restrictive and supercede the less-stringent limits specified in Rule 333 for engines subject to the federal provisions.]

b. ~~Rich burn noncyclic engines shall meet~~ Engines using either combustion modifications or exhaust controls shall meet the oxides of nitrogen ~~(NOx) requirements~~ limit specified above, ~~-~~ or the oxides of nitrogen ~~(NOx)~~ shall be reduced by at least 90 percent by mass of the uncontrolled emissions ~~across the control device~~. For engines with exhaust controls, the percent control shall be determined by measuring concurrently the oxides of nitrogen concentration upstream and downstream from the exhaust control. For engines without external control devices, the percent control shall be based on source test results for the uncontrolled engine and the same engine after the control device or technique has been employed. In this situation, the engine's typical operating parameters, loading, and duty cycle shall be documented and repeated at each successive post-control source test to ensure that the engine is meeting the percent reduction limit. The parts per million by volume (dry) limits for reactive organic compounds and carbon monoxide apply to all engines.

[Note 35: The alternative compliance method of meeting at least a 90 percent NOx reduction for engines using combustion modifications or exhaust controls is consistent with the ARB RACT/BARCT Determination (Table A-1).]

2. ~~Noncyclic Lean~~ Lean-Burn Spark Ignition Engines — See Note 36.

a. The emission concentrations, corrected for oxygen, from any such engine ~~Lean burn noncyclic engines~~ shall not exceed the following limits ~~as corrected for oxygen~~:

Any engine with a rated brake horsepower of 50 or greater but less than 100: — See Note 37.

	Limit **(ppmv at 15 percent oxygen)**
Pollutant	
NOx	200
ROC	750
CO	4,500

[Note 36: Including "spark ignition" in the description stems from an EPA-identified rule deficiency. In the 1994 Technical Support Document for Rule 333, EPA indicated that it is unclear if diesel engines must comply with the 125 ppm limit given for lean burn engines or the 797 ppm limit.]

[Note 37: The emission limits for this range of lean-burn spark ignition engines are consistent with those in the ARB RACT/BARCT Determination. However, emission limits in federal requirements (40CFR) may be more restrictive and supercede the less-stringent limits specified in Rule 333 for engines subject to the federal provisions.]

Any engine with a rated brake horsepower of 100 or greater:

	Limit (~~ppmV~~ppmv at 15 percent oxygen)	
Pollutant	~~15% Oxygen~~	~~3% Oxygen~~
NOx	125	~~380~~
ROC	750	~~2,275~~
CO	4,500	~~13,653~~

b. ~~Lean burn engines shall meet~~Any engine with a rated brake horsepower of 100 or greater using either combustion modifications or exhaust controls shall meet the oxides of nitrogen ~~(NOx)~~ requirements specified above, or the oxides of nitrogen ~~(NOx)~~ shall be reduced by at least 80~~%~~ percent by mass of the uncontrolled emissions ~~across the control device~~. For engines with exhaust controls, the percent control shall be determined by measuring concurrently the oxides of nitrogen concentration upstream and downstream from the exhaust control. For engines without external control devices, the percent control shall be based on source test results for the uncontrolled engine and the same engine after the control device or technique has been employed. In this situation, the engine's typical operating parameters, loading, and duty cycle shall be documented and repeated at each successive post-control source test to ensure that the engine is meeting the percent reduction limit. The parts per million by volume (dry) limits for reactive organic compounds and carbon monoxide apply to all engines.

[Note 38: The limits and provisions for lean-burn spark ignition engines rated at 100 brake horsepower or greater are consistent with the ARB RACT/BARCT Determination (Table A-1). However, emission limits in federal requirements (40CFR) may be more restrictive and supercede the less-stringent limits specified in Rule 333 for engines subject to the federal provisions.]

3. ~~Cyclic~~ Rich-Burn Cyclically-Loaded Spark Ignition Engines

~~a. On or before March 2, 1992 the owner or operator of cyclic engines shall maintain an exhaust stream oxygen concentration of 6.5 percent or greater, by volume. Owners or operators of cyclic engines shall comply with the following:~~

~~i. An initial source test shall be performed within twelve months from December 3, 1991 for each engine. Subsequent source tests shall be performed in accordance with Section G.; and~~

~~ii. The exhaust stream oxygen concentration shall be monitored on a monthly basis utilizing a portable analyzer or any other method approved by the Control Officer. The instrument reading shall be recorded as set forth in Section H.~~

~~b.~~ The emission concentrations, corrected for oxygen, from any such engine ~~Cyclic engines~~ shall not exceed the following limits~~, in accordance with Section I.~~:

Limit (~~ppmV~~ppmv at 15 percent oxygen)

Pollutant	~~15% Oxygen~~	~~3% Oxygen~~
NOx	~~50~~300	~~152~~
ROC	250	~~758~~
CO	4,500	~~13,653~~

[Note 39: Consistent with the ARB RACT/BARCT Determination and to address ARB concerns, the APCD is revising the engine classification terms and the NOx emission limit. Emission limits in federal requirements (40CFR) may be more restrictive and supercede the less-stringent limits specified in Rule 333 for engines subject to the federal provisions,. The APCD is also deleting text that is no longer pertinent.]

~~Alternatively, NOx emissions may be reduced by at least 90% of the uncontrolled emissions across the control device.~~

[Note 40: There is no *percent control of NOx* provision recommended for this engine classification in the ARB RACT/BARCT Determination.]

~~c. In lieu of D.3.a. and D.3.b. above, an engine owner or operator may choose for any cyclic engine to comply with Section D.1. of this rule by designating the cyclic engine as a noncyclic engine for the purposes of this Rule. In this case the owner or operator shall notify the District in writing on or before March 2, 1992 which cyclic engines will be designated as noncyclic engines. These engines shall be included as part of the compliance plan as set forth in Section F.~~

[Note 41: The APCD is deleting the above text because it is no longer pertinent and to address ARB concerns.]

4. Compression Ignition Engines and Dual-Fuel Engines

a. The emission concentrations, corrected for oxygen, from any such engine ~~Diesel engines~~ shall not exceed ~~8.4 grams per brake horsepower-hour of oxides of nitrogen or~~ the following limits ~~as corrected for oxygen~~: See Note 42.

Limit (~~ppmV~~ppmv at 15 percent oxygen)

Pollutant	~~15% Oxygen~~		~~3% Oxygen~~	
NOx	See Note 42. ~~797~~700		~~2,400~~	See Note 43.
ROC	750	See Note 44.		
CO	4,500			

[Note 42: EPA pointed out that the 8.4 grams per brake horsepower hour NOx limit equates to about 670 ppmv at 15% O2 (assuming 35% efficiency), not the rule's 797 ppmv NOx at 15% O2 limit. Thus, the deletion of the 8.4 grams per brake horsepower hour limit will eliminate the consistency problem.]

[Note 43: The APCD is basing the new NOx and ROC limits on the Sacramento Metropolitan AQMD Rule 412 limits and the CO limit on the Ventura County APCD Rule 74.9 limit. The 700 ppmv NOx at 15% oxygen limit is considered a reasonably

available control technology (RACT) limit. The APCD is proposing RACT limits to fulfill EPA requirements. However, the NOx emission limits in the Airborne Toxic Control Measure for Stationary Compression Ignition Engines (California Code of Regulations, Title 17, Section 93115) are more restrictive and, for engines subject to the statute, supercede the less-stringent limit specified in Rule 333. Also, emission limits in federal requirements (40CFR) may be more restrictive and supercede the less-stringent limits specified in Rule 333 for engines subject to the federal provisions.]

[Note 44: ARB pointed out that there was confusion over whether the ROC and CO limits in Sections 333.D.1 or D.2 applied to diesel engines. They suggested that if diesel engines had no ROC or CO limits, this should be stated explicitly in Section 333.D.4. With the addition of the ROC and CO limits, the APCD has addressed this concern.]

b. Engines using either combustion modifications or exhaust controls shall meet the oxides of nitrogen limit specified above, or the oxides of nitrogen shall be reduced by at least 40 percent by mass of the uncontrolled emissions. For engines with exhaust controls, the percent control shall be determined by measuring concurrently the oxides of nitrogen concentration upstream and downstream from the exhaust control. For engines without external control devices, the percent control shall be based on source test results for the uncontrolled engine and the same engine after the control device or technique has been employed. In this situation, the engine's typical operating parameters, loading, and duty cycle shall be documented and repeated at each successive post-control source test to ensure that the engine is meeting the percent reduction limit. The parts per million by volume (dry) limits for reactive organic compounds and carbon monoxide apply to all engines.

[Note 45: The APCD is basing the 40 percent NOx reduction figure on the AP-42 NOx emission factor for uncontrolled compression ignition engines rated less than 600 brake horsepower (Table 3.3-1) and the new 700 ppmv limit. (The inventory has no compression ignition engines rated greater than 600 bhp that are subject to Rule 333.)]

~~5. Alternative Emission Control Plan (AECP)~~

~~An owner or operator of any existing engine subject to this rule may meet the NO_x emission control requirements of Sections D.1, D.2, and D.3.b, by controlling additional existing engines at the same stationary source, which are not otherwise subject to this rule, provided the owner or operator submits an Alternative Emission Control Plan that is enforceable by the District and is approved in writing by the Control Officer, ARB and EPA prior to implementation.~~

~~Any Alternative Emission Control Plan must be submitted by March 9, 1992.~~

~~The Alternative Emission Control Plan shall:~~

~~a. Include all information determined by the Control Officer as necessary to confirm that the requirements of this section will be met.~~

~~b. Include the control of all engines 20 horsepower and larger at the stationary source. All engines shall be controlled consistent with the applicable schedule specified in Section I.~~

~~c. Achieve at least 20 percent more tonnage of NOx emission reductions than otherwise required by Sections D.1, D.2 and D.3.b. The required tonnage of emission reductions shall be calculated using a 90% (80% for lean burn engines) reduction from an uncontrolled emission factor of 2,000 lbs of NOX/MMSCF fuel used, with the baseline fuel usage calculated in accordance with Rule 802.F.2. When engine specific fuel usage is not~~

~~available, fuel use data will be apportioned to individual engines based on their estimated utilized horsepower, following a method approved by the Control Officer.~~

~~d. Specify NO_x, ROC and CO ppmv emission limits for each engine. NO_x ppmv limits for each engine shall be equal to or less than that emitted from the engine when the exhaust stream oxygen concentration is set at the maximum percentage achievable while maintaining stable engine operation. The ROC and CO ppmv limits specified in Sections D.1, D.2 and D.3.b. shall not be exceeded. All engines included in the AECP shall be included as non-exempt engines on District permits with these emission limits specified.~~

~~e. Calculate the uncontrolled emission factor for engines 20 to 49 horsepower by measuring the NO_x emissions in accordance with Section G. (except the test shall be conducted for 30 minutes) with the exhaust stream oxygen concentration adjusted to 2 percent or greater by volume. Baseline fuel usage for these engines shall be calculated as specified above.~~

~~f. Calculate the tonnage of emission reductions achieved to meet the requirements of Section D.5.c. by subtracting the controlled emission rate from the uncontrolled emission rate. The controlled emission rate shall be calculated using the controlled engine NO_x ppmv limit and the baseline fuel usage. The uncontrolled emission rate shall be calculated as specified in Section D.5.c for engines 50 horsepower and over and Section D.5.c for engines 20 to 49 horsepower.~~

~~g. Provide that emission reductions for any engine required under Regulation VIII shall not be used to reduce the emission reductions required of any other engine.~~

~~h. Include engine specific fuel usage monitoring, and other continuous monitoring on each engine determined necessary by the Control Officer to confirm continuous compliance with the required pollution reductions.~~

~~i. Exempt from the requirements of Section G and D.5.h., any 20 to 49 horsepower engines whose control is not required to meet the obligations established under Section D.5.c. These engines must, however, meet all other requirements in the rule, including requirements in Section E. The AECP shall specify any engines subject to this exemption.~~

~~j. Insure compliance with all other provisions of this rule, including but not limited to D.3.a, D.4 and D.5.~~

~~The AECP may be modified at a future date to incorporate equivalent replacement engines which meet the requirements of Rule 202.D.9. The emission limit for the new engine shall be the same as for the replaced engine.~~

~~All District costs for the review and enforcement of the AECP and for District participation in any field studies shall be reimbursed under the cost reimbursement provisions of Rule 210.~~

~~A violation of the AECP shall be a violation of this rule and any applicable permit.~~

[Note 46: The deletion of the entire Alternative Emission Control Plan section is consistent with a recommendation by EPA and will eliminate an outdated provision. The March 9, 1992 deadline for submitting an AECP has passed, no sources ever submitted an AECP, and no such plans are currently in effect.]

~~6~~5. The use of anhydrous ammonia to meet the requirements of this rule is prohibited unless case-specific analysis indicates that the use is acceptable to the Control Officer.

[Note 47: Adding the *case-specific* provision will allow future analysis (including CEQA analysis) to address the acceptability of using anhydrous ammonia for a control technique.]

~~E~~F. Requirements - Owner or Operator Engine Inspection~~s~~ and Maintenance Plan

~~All~~ Any engine~~s~~ subject to the requirements of Section ~~D~~ E shall be inspected by the engine owner or operator in accordance with a ~~District~~ District-approved ~~engine~~ Engine ~~inspection~~ Inspection and ~~maintenance~~ Maintenance ~~plan~~ Plan for each stationary source~~, which~~. The owner or operator shall meet the following requirements for the Plan in accordance with the compliance schedule specified in Section K:

1. ~~The plan shall be submitted to the District by March 2, 1992.~~ Obtain the Control Officer's approval of the Plan. An Inspection and Maintenance Plan for each stationary source shall be submitted to the District in a format approved by the Control Officer.

[Note 48: Per the recommendations in the ARB RACT/BARCT Determination, engine owners and operators are to implement an Inspection and Maintenance Plan (I&M Plan) as part of the Emission Control Plan requirements. Section K.2.d.ii.1) requires the owners and operators of any existing engine subject to the emission limits to submit a new/revised I&M Plan no later than six months from the date of the revised rule adoption.]

2. ~~Such plan shall list~~ List all engines by engine classification~~, identified as either cyclies~~ (rich-burn noncyclically-loaded spark ignition, rich-burn cyclically-loaded spark ignition, lean-burn spark ignition, ~~and noncyclics~~compression ignition, or dual-fuel)~~,~~ and identify the method, engine and control equipment operating ~~parameters~~parameter ranges, and compliance values, including engine exhaust oxygen concentration ranges, to be used to verify compliance with Section ~~D~~E.

[Note 49: The ARB RACT/BARCT Determination recommends that engine owners and operators establish ranges for control equipment parameters, engine operating parameters, and engine exhaust oxygen concentrations that source testing has shown results in pollutant concentrations within the rule limits. This data will be used during the inspections required by the I&M Plan to ensure that the equipment is operating correctly.]

~~3. The plan shall require a minimum of one inspection for each engine every calendar quarter. The readings for each parameter identified in E.2. shall be recorded pursuant to Section H.~~

[Note 50: The current "quarterly inspection and monitor reading recordkeeping" requirements of Subsection 3 are being integrated into other sections. Hence, the current provisions in Section 3 are deleted and Subsection 4 will be renumbered as 3.]

43. A portable ~~NOx~~ emissions analyzer ~~or any other method approved by the Control Officer~~ shall be used to take ~~NOx~~ oxides of nitrogen and carbon monoxide emission readings and engine exhaust oxygen concentration readings to determine compliance with the emission limits or percent control specified in Section ~~D~~ E during ~~which~~ any quarter (or month, if performing monthly monitoring) in which a source test is not performed under Section ~~G~~ I and an engine is operated in excess of 20 hours per quarter. If such an engine cannot be operated for portable analyzer emissions testing due to mechanical failure or lack of fuel, the monitoring requirement may be waived provided written Control Officer approval is obtained prior to the end of the quarter (or month, if performing monthly monitoring). All emission readings shall be taken at an engine's typical duty cycle. ~~The results shall be recorded pursuant to Section H.~~ The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a Control Officer approved protocol. The applicable control equipment parameters and engine operating parameters will be inspected and monitored in conformance with a regular inspection schedule listed in the Plan. A~~n~~ portable analyzer instrument reading in excess of the emission compliance values shall not be considered a violation ~~of this rule~~, so long as the ~~problem is corrected~~ engine is brought into compliance and a follow-up inspection is conducted within 15 days of the initial ~~inspection~~out-of-compliance reading. If an engine owner or operator or district staff find an engine to be operating outside the acceptable range for control equipment parameters, engine operating parameters, engine exhaust oxides of nitrogen or carbon monoxide concentrations, the owner or operator shall bring the engine into compliance within 15 days. Also, when there has been a portable analyzer instrument reading in excess of the emission compliance value or a source test result in excess of an emission limit or less than the percent control requirement, the inspection and maintenance monitoring schedule will be performed on a monthly basis and continue to be monthly until Rule 333 compliance is demonstrated in three consecutive months (by portable analyzer or source tests).

See Note 51. See Note 52. See Note 53. See Note 54. See Note 55. See Note 56. See Note 57. See Note 52.

[Note 51: The text on "NOx Analyzer" is being revised to be "emissions analyzers" to take into account that the instrument needs to measure NOx, CO, and the oxygen concentration to provide compliance data corrected for oxygen. The *or any other method approved by the Control Officer* text is being deleted to simplify the rule. Exhaust oxygen concentrations need to be determined to correct the NOx and CO emission readings to the 15% O2 standard.]

[Note 52: The APCD is proposing that the inspections required by I&M plans continue to be on a quarterly basis. However, if the engine or its control equipment is found to be operating outside an acceptable range, parameter, or NOx/CO emission limit, the monitoring frequency will be changed to a monthly basis. The monthly frequency will continue until there are three months of monitoring results demonstrating compliance.]

[Note 53: The *in excess of 20 hours per quarter* provision is added to waive the monitoring requirements for engines that have low usage or that are out of service. Also, owners and operators of engines encountering mechanical failures or lack of fuel may seek a waiver on the monitoring requirement. The APCD added these provisions based on input from Industry.]

[Note 54: During an annual or biennial comprehensive source test, it is the APCD practice to test emission units at the maximum load feasible. At a minimum, source test loads must reflect loads representative of typical operations. For a monthly or quarterly I&M, the APCD will accept tests performed at an engine's typical duty cycle.]

[Note 55: This text is from the ARB RACT/BARCT determination (except the reference to monthly monitoring was removed).]

[Note 56: These text changes are made for clarity.]

[Note 57: This provision is added to clarify that there is a 15-day period to bring a noncompliant engine into compliance.]

The results and ~~instrument~~ readings for each engine and control equipment operating parameter identified in the ~~inspection plan~~ Inspection and Maintenance Plan, the analyzer instrument readings, a description of the corrective actions taken, a determination of whether or not the engine is in compliance, and the ~~initials~~ name of the person recording the ~~measurement~~ information shall be recorded ~~on~~ in an inspection log consistent with the recordkeeping provisions specified in Section J.1.

[Note 58: The APCD is changing the provision from recording *initials* to *name* to improve accountability. Also, the cross-reference to the recordkeeping provisions in Section J.1 is included for consistency.]

4. Include preventive and corrective maintenance procedures. Before any change in operations can be implemented, the Plan must be revised as necessary, and the revised Plan must be submitted to and approved by the Control Officer.

[Note 59: The new number 4 and plan change provisions are consistent with those specified in the ARB RACT/BARCT Determination (§VII.A(2)).]

~~F~~G. Requirements - Compliance Plan

[Note 60: The ARB RACT/BARCT Determination recommends that engine owners and operators subject to the emission limits submit an "Emission Control Plan." These plans are what the APCD refers to as a "Compliance Plan" in Rule 333.

~~A compliance~~ The owner or operator of any engine subject to the emission limits in Section E shall submit and obtain the Control Officer's approval of a Compliance ~~plan~~Plan. A new or revised Compliance Plan for each stationary source shall be submitted to the District in a format approved by the Control Officer in accordance with the time schedule specified in Section ~~I.2.~~ K unless otherwise specified by the Control Officer. ~~or I.3. to the District for each stationary source~~ The Compliance Plan shall describe all actions, including a schedule of increments of progress, which will be taken to meet the applicable emissions limitations in Section E and the compliance schedule in Section K. The owner or operator shall ensure that the Compliance Plan meets the following requirements ~~and shall include~~:

See Note 61.
See Note 62.
See Note 63.

[Note 61: The APCD added the *any engine subject to the emission limits in Section E* text to clarify that only engines subject to the Rule 333 emission limits require a Compliance Plan.]

[Note 62: This language is included to allow APCO discretion on the submittal of revised I&M and Compliance Plans.]

[Note 63: This is the same text found in the ARB RACT/BARCT Determination (§VII.A(1)).]

1. ~~a.~~ List of all engines ~~with~~ by classification (rich-burn noncyclically-loaded spark ignition, rich-burn cyclically-loaded spark ignition, lean-burn spark ignition, compression ignition, or dual-fuel), make, model, serial number (or owner's/operator's ID number), rated brake horsepower ~~and associated RPM~~, type of fuel (including higher heating value and percent or ~~ppm~~ parts per million by volume (dry) sulfur), engine application, ~~maximum~~ total hours of operation ~~per~~ in the previous year, typical daily operating schedule, fuel consumption (cubic feet of gas or gallons of liquid) for the previous one year period, engine location and engine ~~PTO~~ Permit to Operate number ~~(if applicable);~~ and

See Note 64.

See Note 65.

See Note 66.

[Note 64: Specifying the engine classification is important to establish the applicable Rule 333, Section E emission limits.]

[Note 65: The APCD is adding *owner's* on the engine identification provision for consistency with Rule 333.D.1.]

[Note 66: Providing the information for each engine is consistent with a recommendation in the ARB RACT/BARCT Determination.]

2. List manufacturer-tested typical emission rates or source test values, if available or documentation showing existing emissions of oxides of nitrogen, reactive organic compounds, and carbon monoxide~~;~~. ~~and~~

[Note 67: The ARB RACT/BARCT Determination, Section VII.A(1)(k) recommends that the documentation on the existing emissions of NOx, VOC, and CO be provided.]

3. List the applicable emission limits.

[Note 68: Reference the ARB RACT/BARCT Determination, Section VII.A(1)(j).]

~~3~~4. List the type of emission control device or method for each engine, and the temperature and flow rate of the exhaust gas, and any auxiliary devices used with the main control device (i.e., air-to-fuel ratio controller, exhaust gas monitor, etc.), ~~and~~ the proposed installation completion date for each engine to be controlled, stack modifications to facilitate continuous in-stack monitoring and source testing.

[Note 69: Providing the stack modification data is consistent with the ARB RACT/BARCT Determination, Section VII.A(1)(i).]

5. An Engine Inspection and Maintenance Plan, as specified in Section F, or at a minimum, a reference to and a statement incorporating the Engine Inspection and Maintenance Plan into the Compliance Plan.

[Note 70: Section VII.A(2) of the ARB RACT/BARCT Determination recommends that the Emission Control Plan include the I&M Plan.]

~~4~~6. List of all existing ~~and operating~~ engines planned for shutdown or electrification and the proposed date of shutdown or electrification.

[Note 71: The *and operating engine* text is no longer used in this rule.]

An owner or operator may modify a ~~compliance~~ Compliance ~~plan~~ Plan by submitting a modified plan to the District at least ~~thirty (~~30~~) calendar~~ days prior to modifying the equipment~~,~~ or control method ~~or compliance~~

~~date~~ for any engine. ~~Modification of a compliance plan shall not alter the schedule of controlled horsepower required in Section I.~~

Approval of a ~~compliance~~ Compliance ~~plan~~ Plan does not relieve the owner or operator of engine(s) from the permitting requirements of District Rule 201.

[Note 72: These changes are made for consistency with other parts of the rule and for improved rule clarity.]

H. [Reserved]

[Note 73: A previously proposed Section H covered the requirements for a Heat Input Verification Plan, which was integral to an earlier proposed Section B.3 exemption. The APCD proposed requirements to demonstrate that an engine rated greater than 50 brake horsepower operates at all times below 50 brake horsepower. After discussing the need for the exemption, Industry and APCD staff decided that the proposed exemption and its related plan could be deleted. Rather than revise the previously assigned alphabetical designations of the successive rule sections, the APCD elected to simply "reserve" Section H.]

~~G~~I. Requirements - Source Testing

The owner or operator of any engine subject to the requirements of Section E shall comply with the following:

[Note 74: The APCD added the lead-in sentence to clarify that only engines subject to the Rule 333 emission limits are subject to the source testing provisions.]

1. ~~Source test plans~~ Except as otherwise provided in Section I.8, an initial emissions source test shall be performed on each stationary internal combustion engine to verify compliance with Section E. ~~A~~ After the initial source test, source tests shall be performed biennially to demonstrate compliance with Section ~~D~~E. ~~S~~These source tests shall be performed within 30 ~~calendar~~ days of the anniversary date of the initial source test, unless the Control Officer approves a period longer than ~~thirty (~~30~~)~~ ~~calendar~~ days. Emissions source testing shall be conducted at an engine's maximum achievable load or, at a minimum, under the engine's typical duty cycle as demonstrated by historical operational data. Source test loads shall be finalized in the source test plan approved by the District per Section I.2. For facilities with more than 20 engines subject to Section E requirements, the Control Officer may, on a case-by-base basis, approve a source's written request to exclude one or more engines from biennial testing. Such a request shall be submitted with the Plan required in Section I.2.

See Note 75.
See Note 76.
See Note 77.

[Note 75: Section VII.B(1)(c) of the ARB RACT/BARCT Determination recommends that the source testing requirements include a provision on an initial source test.]

[Note 76: These provisions are currently in existing Rule 333, Section G.1.b. Staff relocated the 1.b biennial source testing requirements into the above paragraph and renumbered the subsections.]

[Note 77: The *maximum achievable load* or *typical duty cycle* have historically been addressed in the permit conditions and determined during the Source Test Plan review process.]

2. ~~a. An owner or operator of any engine shall~~ A source test plan shall be submitted to the District and ~~obtain~~ the Control Officer's approval ~~of a source test plan~~shall be obtained prior to the start of a source test. The approved plan shall be ~~on~~ filed with the District at least ~~thirty (~~30~~)~~ ~~calendar~~ days before the start of each source test~~ing~~. The District shall be notified of the date for source testing an engine at least ~~fourteen (~~14~~)~~ ~~calendar~~ days prior to testing to arrange a mutually agreeable test date. In addition to other information, the source test plan shall describe which critical parameters will be measured, and how the ranges for these parameters shall be established and incorporated into the Engine Inspection and Maintenance Plan described in Section F.

[Note 78: These requirements are consistent with provisions recommended in the ARB RACT/BARCT Determination, Section VII.B(1)(c).]

~~b. A source test shall be performed biennially to demonstrate compliance with Section D. Source tests shall be performed within 30 calendar days of the anniversary date of the initial source test, unless the Control Officer approves a period longer than thirty (30) calendar days.~~

[Note 79: The APCD moved the biennial source testing frequency provision into Section I.1, above.]

3. ~~c.~~ Source testing shall be performed by a source test contractor certified by the ~~California~~ Air Resources Board. District required ~~S~~source testing shall not be performed by a source owner or operator unless approved by the Control Officer.

[Note 80: These changes are made for clarity.]

4. For each source test performed, a Source Test Report shall be submitted to the District within 45 days of completing the test. Reactive Organic Compounds, oxides of nitrogen, and carbon monoxide concentrations shall be reported in parts per million by volume, corrected to 15 percent oxygen. For engines using either combustion modifications or exhaust controls, oxides of nitrogen shall be reported as a percent reduction from the combustion modification or control device.

[Note 81: This is being added for clarity]

5. ~~d. The owner or operator of~~ For any engine ~~which~~ that is found not to be in compliance with Section ~~D~~E~~.~~ as a result of source testing, ~~shall comply with~~ the following shall apply:

a. ~~i. A r~~Repeat a source test ~~shall be performed~~ to demonstrate compliance with Section ~~D.~~E within the time period specified by the District.

b. ~~ii.~~ Notwithstanding the provisions of Section ~~G.1.b.~~I.1, annual source tests shall be conducted on any noncompliant engine until two consecutive annual tests demonstrate the engine is in compliance with Section ~~D~~ E. When the engine is demonstrated to be compliance with Section ~~D~~ E by two consecutive annual source tests, the engine shall comply with the provisions of Section ~~G.1.b~~I.1.

[Note 82: These changes are made for consistency with other parts of the rule and for improved rule clarity.]

~~2~~6. Engine operating parameters (e.g., timing, manifold vacuum pressure, valve set points, etc.) shall be established using the results of the source test carried out pursuant to Section ~~G~~I.1.

~~3~~7. Test Methods

a. Source testing shall be performed in accordance with the following procedures:

~~NOx, CO, O_2: CARB Method 1-100~~

~~ROC: EPA Method 18 or EPA Method 25~~

i. Stack gas oxygen: Environmental Protection Agency Method 3A or Air Resources Board Method 100.

ii. Nitrogen oxides: Environmental Protection Agency Method 7E or Air Resources Board Method 100.

iii. Carbon monoxide: Environmental Protection Agency Method 10 or Air Resources Board Method 100.

[Note 83: In ARB's 1992 comments on Rule 333, ARB recommended that the source test method be changed from CARB Method "1-100" to "100." Including the alternative EPA Methods 3A, 7E, and 10 is consistent with the ARB RACT/BARCT Determination.]

iv. Reactive organic compounds: Environmental Protection Agency Method 18 with gas chromatography-flame ionization detection speciation analysis for C1, C2, C3, C4, C5, C6+ species.

[Note 84: ARB pointed out that the rule should require the EPA Method 25 (for determination of total organics) "and" the EPA Method 18 (for determination of exempt compounds), not "or" as currently written. ARB's basis for this recommendation was that the two EPA methods are not alternatives; they are used in combination to determine ROC emissions corrected for exempt compounds (non-ROCs).

The APCD has chosen EPA Method 18 as it allows for subtracting "exempt compounds" from the total organic compound measurement.]

v. Pollutant Mass Emission Rate (e.g., pounds per hour): Calculated from stack flow rate data obtained by either 1) the Environmental Protection Agency Methods 1 through 4, or 2) the Environmental Protection Agency ~~exhaust concentration, fuel flow and fuel composition data as per EPA~~ Method 19 ~~, Sections 2.1 and 3.2.1.~~ stack flow rate F factor (ratio of combustion gas volume to heat input), using fuel flow and fuel composition data.

[Note 85: The pollutant mass emission rate test methods data is being relocated here to group the "method" tests together.]

vi. Fuel rate: ~~Appropriate~~ District-approved metering system, calibrated within 60 days of the test date. Public utility company regulated utility fuel meters relied on by operators for testing may be allowed an alternative calibration schedule per the Control Officer's discretion. Results must be corrected for ~~temperature and pressure (~~standard conditions ~~of 60°F and 29.92 inches of Mercury~~.

[Note 86: Adding *District-approved* clarifies that the metering system needs to meet the APCD's standards. Some sources rely on PUC meters, which are calibrated under different schedules with rigorous protocols. Thus, the APCD may allow the calibration window to extend beyond 60 days before the source test for such meters. The text on *temperature and pressure* is not necessary as the standard condition definition in Rule 102 defines them.]

vii. Determination of the Fuel Composition and Higher Heating Value: The following applicable standards developed by ASTM International: ~~ASTM Method~~

1) ASTM D- 1945-~~81~~03, "Standard Test Method for Analysis of Natural Gas by Gas Chromatography," ASTM International,

2) ASTM ~~Method~~ D- 3588-~~81~~98 (2003), "Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels," ASTM International, ~~and~~

3) ASTM ~~Method~~ D- 1072-~~80.~~06, "Standard Test Method for Total Sulfur in Fuel Gases," ASTM International,

4) ASTM D 240-02 (2007), "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter," ASTM International,

5) ASTM D 4809-06, "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method)," ASTM International, and

6) ASTM D 1826-94 (2003), "Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter," ASTM International.

The Control Officer may approve in writing alternative methods for determining the fuel composition or fuel higher heating value.

[Note 87: The APCD has included ASTM International methods typically used for fuel composition and the fuel's HHV analysis. The last provision on the APCO-approved alternative methods is included to allow use of other ASTM International methods or other similarly acceptable methods that a source may propose.]

~~Pollutant Emission Rate: Calculated from exhaust concentration, fuel flow and fuel composition dataas per EPA Method 19, Sections 2.1 and 3.2.1.~~

[Note 88: The pollutant mass emission rate provision is moved to Section I.7.a.v and it is being modified for improved rule clarity.]

b. The Control Officer may approve in writing an alternative source test method provided that such method is comparable in accuracy to the procedure in ~~G.3.a~~ I.7.a and has been approved by the ~~ARB~~ Air Resources Board and the ~~EPA~~ Environmental Protection Agency.

[Note 89: These changes are made for consistency with other parts of the rule and for improved rule clarity.]

c. At a minimum, three 30 minute test runs shall be performed, and the average concentration from the three runs shall be used for determining compliance unless alternative provisions are specified in an approved source testing plan.

[Note 90: The ARB RACT/BARCT Determination for Spark Ignition Engines specifies the following when indicating the RACT and BARCT limits:

> **[. . .] emissions, corrected to 15 percent oxygen on a dry basis and averaged over 15 minutes, shall not exceed the following limits for the appropriate engine type:**

However, based on industry input, the APCD agreed to use a 30 minute averaging time instead of the 15 minute period recommended by ARB.]

8. Initial and biennial source testing requirements shall not be applicable to any compression ignition engines that are subject to an exhaust emission standard in the:

a. California Code of Regulations, Title 13, Section 2423, for off-road engines, or

b. 40 CFR, Part 89, for nonroad compression ignition engines.

However, a source test shall be triggered for such engine if the result from a portable analyzer emissions monitoring reading (e.g., a result obtained during the monitoring required by Section F.3) exceeds a threshold of 560 parts per million of oxides of nitrogen at 15 percent oxygen, unless the engine is brought into compliance with this threshold value and a follow-up portable analyzer monitoring inspection is conducted within 15 days of the initial over-the-threshold reading. See Note 92.

The owner or operator of the engine shall provide written notification to the Control Officer within two business days of a portable analyzer emissions monitoring reading in excess of the 560 parts per million of oxides of nitrogen at 15 percent oxygen threshold. In addition, portable analyzer monitoring results shall be reported to the APCD within three business days of any follow-up quarterly portable analyzer monitoring.

Source testing of a Tier 1, 2, 3 or 4 engine, if triggered per the above criteria, shall be completed within 60 days of the initial over-the-threshold reading and shall comply with Sections I.2, I.3, I.4, I.5.a, and I.7.

Any compression ignition engine that triggers a source test, and demonstrates compliance with the oxides of nitrogen standard in Section E.4, shall not be subject to another source test for two years from the date of the initial compliant source test. Any compression ignition engine that does not comply with the oxides of nitrogen standard in Section E.4 based on any source test, shall thereafter be subject to source testing on a biennial schedule starting from the date of the initial failed source test.

[Note 91: The new Section I.8 provisions are being added to provide an exemption to diesel engines complying with the ARB/EPA tier limits. By adding this exemption for the ARB/EPA tiered engines, the APCD avoids requiring source tests on these engines.]

[Note 92: The APCD decided on the 560 ppmv at 15 percent oxygen threshold since this level indicates the NOx Tier certification is not holding, and emissions levels could potentially be above the applicable emission limit considering the uncertainty of the portable analyzer.]

~~H~~J. Recordkeeping

1. The owner or operator of any engine subject to the requirements of ~~this rule~~ Section E shall maintain a written ~~engine~~ Engine ~~operation~~ Operation, Inspection, and Maintenance ~~log~~ Log containing the following information for each engine subject to an emission limit:

[Note 93: The APCD added the *subject to the requirements of Section E* text to clarify that only engines subject to the Rule 333 emission limits are subject to the Engine Operation, Inspection, and Maintenance Log requirements.]

a~~).~~ Engine classification (rich-burn noncyclically-loaded spark ignition, rich-burn cyclically-loaded spark ignition, lean-burn spark ignition, compression ignition, or dual-fuel), make, model, and serial number or the owner's or operator's unique identification number.

[Note 94: Indication of the engine's classification, make, model, and serial number or the owner's/operator's unique ID number is important for tracking purposes. (If the owner or operator chooses to use the APCD's device identification number that would suffice to fulfill the *owner's or operator's unique identification number* requirement.)]

b. ~~h~~Hours of operation, as determined by a nonresettable elapsed operating time meter, ~~each month for each engine~~ since the last inspection~~;~~.

[Note 95: Proposed amended Rule 333, Section D.2, requires that each engine subject to the rule be equipped with a nonresettable elapsed operating time meter. The *each month* recording frequency is being changed to *since the last inspection* because the I&M Plan monitoring frequency is quarterly for compliant engines.]

~~b)~~c. ~~l~~Location ~~and hours~~ of ~~engine~~ operation of the engine ~~as determined by an hour meter for each engine which operates less than 200 hours per calendar year~~.

[Note 96: The recordkeeping provision on the operating hours for engines operating less than 200 hours per year is being moved to a separate section (Rule 333.J.3). Thus, the text is being deleted from the above section.]

~~c)~~d. ~~a.~~ A summary of any maintenance performed on an emission control device~~;~~.

~~d)~~e. ~~a.~~ A summary of any maintenance performed on an engine ~~which~~ that affects the emission control device~~.; and,~~

~~e)~~f. ~~the o~~Observations made ~~in~~ during each monthly or quarterly inspection, pursuant to the requirements of Section ~~E~~ F.3.

[Note 97: The changes in the above three sections are made for consistency with other parts of the rule and for improved rule clarity.]

g. Date of each log entry and the printed or typed name of the person entering the log information.

[Note 98: Documenting the date of each log entry is important for verifying compliance with the Section F.3 periodic I&M monitoring requirement. Requiring that the person performing the monitoring/inspection print or type their name is needed to ensure accountability.]

h. For every engine that has been relocated, a notation to that effect identifying both the present and prior location, the reason(s) for the engine relocation, and the elapsed operating time meter readings for both the relocated engine and the engine being displaced.

[Note 99: Details on relocated and displaced engines help verify compliance with Permit conditions.]

2. Copies of all ~~engine~~ Engine Operation, ~~inspection~~Inspection, and ~~maintenance~~ Maintenance ~~logs~~ Logs shall be retained ~~by the operator~~ for a minimum of 2 years after the date of the last entry and shall be available to the District upon request. Thereafter, the Logs shall be retained for an additional 3 years either at the stationary source or in a readily available location that allows for expeditious District inspection and review.

[Note 100: The new additional 3 year log retention provision is made to comply with an EPA policy.]

3. For any exemption claimed under Section B.2, maintain a written Engine Exemption Log containing the following information for each engine subject of the claim in accordance with the compliance schedule in Section K:

a. Engine's classification (rich-burn noncyclically-loaded spark ignition, rich-burn cyclically-loaded spark ignition, lean-burn spark ignition, compression ignition, or dual-fuel), make, model, and serial number or the owner's or operator's unique identification number.

[Note 101: Sources claiming the Rule 333.B.2 exemption need to comply with the Rule 333.D.1 engine identification requirement. Indication of the engine's make, model, and serial number or the owner's/operator's unique ID number is important for compliance and tracking purposes. (If the owner or operator chooses to use the APCD's device identification number that would suffice to fulfill the *owner's or operator's unique identification number* requirement.)]

b. Hours of operation per quarter (or more often at the owner's or operator's discretion), as determined by a nonresettable elapsed operating time meter.

[Note 102: Requiring the engine owner or operator to record the engine operating hours provides a method for verifying compliance with the 200 hours per year threshold.]

c. Location of operation of the engine.

[Note 103: Documenting the location of the engine is necessary for inventory and compliance purposes.]

d. Date of each log entry and the printed or typed name of the person entering the log information.

[Note 104: Documenting the date of each log entry is important for verifying compliance with these recordkeeping provisions. Requiring that the person performing the monitoring/inspection print or type their name is needed to ensure accountability.]

e. For every engine that has been relocated, a notation to that effect identifying both the present and prior location, the reason(s) for the engine relocation, and the elapsed operating time meter readings for both the relocated engine and the engine being displaced.

[Note 105: Details on relocated and displaced engines help verify compliance that the 200 hours per year threshold is not being exceeded.]

At a minimum, entries in the Engine Exemption Log shall be performed on the first day the engine is operated in a new quarter and when any engine is relocated. Copies of all such Logs shall be retained at the stationary source for a minimum of 2 years after the date of the last entry and shall be available to the District upon request. Thereafter, the Logs shall be retained for an additional 3 years either at the stationary source or in a readily available location that allows for expeditious District inspection and review.

See Note 106.

See Note 107.

[Note 106: Industry has indicated that under the existing recordkeeping provisions they had to log the operating hours on an engine each quarter irrespective that the engine had not operated during the reporting period. Thus, the APCD is adding *the first day the engine is operated in a new quarter* to avoid unnecessary recordkeeping.]

[Note 107: This retention provision complies with an EPA policy on maintaining records for five years.]

~~H~~K. Compliance Schedule

The owner or operator of any engine subject to this rule shall meet the following compliance schedule:

1. New engines: ~~shall comply with this rule on the date of adoption.~~

   Commencing [*date of revised rule adoption*], any new engine shall comply with this rule the first time it is operated in the District or the outer continental shelf for which the District is the corresponding onshore area.

[Note 108: The owner or operator of any new engine will need to comply with the requirements for engine identification, metering, and the I&M and Compliance Plans the first time the engine is operated in the APCD's jurisdiction.]

~~2. Owners or operators of existing noncyclic engines shall comply as follows:~~

~~a. by March 2, 1992 submit a Compliance Plan pursuant to Section F.; and~~

~~b. by September 3, 1992 control a sufficient number of engines to meet the requirements of Section D. for a minimum of 33% of the total rated brake horsepower of the engines at the stationary source; and~~

~~c. by June 3, 1993 control a sufficient number of engines to meet the requirements of Section D. for a minimum of 66% of the total rated brake horsepower of the engines at the stationary source; and~~

~~d. by March 8, 1994 control a sufficient number of engines to meet the requirements of Section D. for all engines.~~

~~3. Owners or operators of existing cyclic engines shall comply as follows:~~

~~a. by March 2, 1992 meet the requirements of Section D.3.a.~~

~~b. Within one year or sooner from date of adoption the Board of Directors of the Air Pollution Control District shall notice a public hearing at least thirty (30) days prior to the hearing date. The hearing will be held to review additional information pertaining to the requirements of Section D.1., D.2. and D.3.b.~~

~~c. by March 3, 1993 submit a Compliance Plan pursuant to Section F.; and~~

~~d. by March 3, 1994 all engines shall be controlled to the limits established by the Board of Directors of the Air Pollution Control District.~~

~~4. An existing and operating engine that is permanently shut down or electrified after the date of rule adoption can be included in determining the percent of total horsepower that meets the requirements of Section D.~~

~~5. An application for an ATC shall be filed 120 days before the compliance date for each engine set forth in I.2.b. and 180 days for engines set forth in I.2.c., I.2.d., and I.3.d.~~

2. Existing Engines:

a. For any engine subject to an emission limit:

The Rule 333 [*date of revised rule adoption*] revisions resulted in changes in the oxides of nitrogen (NOx) emission limits and the addition of reactive organic compound (ROC) and carbon monoxide emission limits as summarized in the attached Tables 1 and 2.

Any engine previously subject to any emission limit in the April 17, 1997 adopted Rule 333, shall continue to comply with the emission limit(s) until such time that compliance with a revised emission limit is required. Further, any engine subject to a revised emission limit, as indicated in attached Tables 1 or 2, shall comply with the Rule 333 Section E emission limits by [*two years from the date of revised rule adoption*] unless the engine is permanently removed. See Note 109.

Any engine that was previously exempt from Rule 333, but became subject to Rule 333 emission limits through the [*date of revised rule adoption*] Rule 202 revisions shall comply with the Rule 333 Section E emission limits by [*two years from the date of revised rule adoption*] unless the engine is permanently removed.

An initial source test demonstrating compliance with a new or revised emission limit shall be completed in accordance with Section I prior to [*two years from the date of revised rule adoption*]. The owner or operator of any engine to be modified or replaced to comply with the Section E emission limits shall submit an Authority to Construct application to the Control Officer by [*one year from the date of revised rule adoption*]. See Note 110.

[Note 109: Existing engines previously complying with the rule's emission limits are required to continue complying with the emission limits until a revised rule limit becomes effective. Thus, for Category 1 and 3 engines complying with the emission limits, implementation of the revised rule limits is seamless between the old and the new rule.

Category 5 engines previously complying with the NOx limit will need to 1) continue to comply with the 797 ppmv NOx at 15 %O2 limit and 2) comply with the revised

NOx limit and the new ROC and CO limits by two years from the date of the rule revision.]

[Note 110: The two-year compliance deadlines for complying with the emission limits and for performing source tests are consistent with the deadlines recommended in the ARB RACT/BARCT Determination.]

b. For any engine that will be permanently removed from service:

i. by [*one month from the date of revised rule adoption*], comply with the engine identification requirements in Section D.1;

ii. by [*six months from the date of revised rule adoption*], submit a statement to the Control Officer identifying the engine to be removed; and

iii. by [*two years from the date of revised rule adoption*], remove the engine.

[Note 111: The Section K.2.b provision establishes an alternative compliance method to meeting the emission limits and a compliance schedule that are similar to those recommended in the ARB RACT/BARCT Determination.]

c. For any engine subject to the exemption in Section B.2 (operating less than 200 hours per year):

i. by [*one month from the date of revised rule adoption*], comply with the engine identification requirements in Section D.1 and the recordkeeping provisions in Section J.3; and

ii. by [*six months from the date of revised rule adoption*], install and comply with the metering requirements in Sections D.2.

[Note 112: The APCD is establishing deadlines for sources claiming the exemption to ensure timely compliance with the requirements. This approach should minimize engine owners and operators claiming this exemption only after the APCD has identified potential Rule 202 and/or Rule 333 compliance problems with an engine.]

d. For any engine subject to engine identification, plans, or metering requirements in Section D:

i. by [*one month from the date of revised rule adoption*], comply with the engine identification requirements in Section D.1 and the recordkeeping provisions in Section J;

[Note 113: The majority of the engines have been subject to identification requirements implemented either through the APCD permitting process as a permit condition, documentation of permit exemptions, and/or through the documentation of the APCD emission inventory. Likewise, the recordkeeping provisions should not be a new requirement for most engine owners and operators.]

ii. by [*six months from the date of revised rule adoption*]:

1) submit a new/revised Engine Inspection and Maintenance Plan for the Control Officer's approval pursuant to Section F. Any previously

See Note 114.

approved Engine Inspection and Maintenance Plan will continue to be in force until the Control Officer approves a revised plan; and

2) except as specified in Section B.3, submit a new/revised Compliance Plan for the Control Officer's approval pursuant to Section G. Previously approved Compliance Plans will continue to be in force until the Control Officer approves a revised Compliance Plan; and

iii. by [*nine months from the date of revised rule adoption*], install and comply with the metering requirements in Sections D.2 and D.3. See Note 115.

[Note 114: The ARB RACT/BARCT Determination, Section V.B(1) recommends a six month deadline for submitting an Emission Control Plan. Also, the Determination's Section VII.A(2) recommends that the Compliance Plan include the I&M Plan.]

[Note 115: Compliance with the operating hour metering and the fuel consumption metering/quantification requirements is consistent with the ARB RACT/BARCT Determination Section VII.B(2) provisions.]

ATTACHMENT

Table 1: Summarized Oxides of Nitrogen Emission Limit Changes Resulting from the *[date of revised rule adoption]* Rule 333 Revision

Engine Type	Category Number	April 17, 1997 Adopted Rule 333 NOx Limits		*[Date of Revised Rule Adoption]* Adopted Rule 333 NOx Limits		Effect of Change
		% Control	ppmv (at 15% O2)	% Control	ppmv (at 15% O2)	
Rich-Burn Noncyclically-Loaded Spark Ignition Engines	1	90	50	90	50	No change
Lean-Burn Spark Ignition Engines in the 50 to less than 100 bhp Range	2	80	125	-	200	Increased emission limit
Lean-Burn Spark Ignition Engines Rated 100 bhp or Greater	3	80	125	80	125	No change
Rich-Burn Cyclically-Loaded Spark Ignition Engines	4	90	50	-	300	Increased emission limit
Compression Ignition Engines and Dual-Fuel Engines	5	-	797	40	700	Decreased emission limit

Table 2: Summarized Reactive Organic Compound and Carbon Monoxide Emission Limit Changes Resulting from the *[date of revised rule adoption]* Rule 333 Revision

Engine Type	Category Number	April 17, 1997 Adopted Rule 333 Limits, ppmv (at 15% O2)		*[Date of Revised Rule Adoption]* Adopted Rule 333 Limits, ppmv (at 15% O2)		Effect of Change
		ROC	CO	ROC	CO	
Rich-Burn Noncyclically-Loaded Spark Ignition Engines	1	250	4,500	250	4,500	No change
Lean-Burn Spark Ignition Engines in the 50 to less than 100 bhp Range	2	750	4,500	750	4,500	No change
Lean-Burn Spark Ignition Engines Rated 100 bhp or Greater	3	750	4,500	750	4,500	No change
Rich-Burn Cyclically-Loaded Spark Ignition Engines	4	250	4,500	250	4,500	No change
Compression Ignition Engines and Dual-Fuel Engines	5	-	-	750	4,500	New emission limits

[Note 116: Tables 1 and 2 restate the emission limits from the April 17, 1997 adopted Rule 333, Section D, and the proposed revised Rule 333, Section E. For some

categories (e.g., 1 and 3), there is no change in the emission limits. Other categories (e.g., 2 and 4) have emission increases. However, it should be noted that there are no

Category 2 or 4 engines currently subject to the April 17, 1997 adopted emission limits. Thus, the APCD does not expect that there will be any increase in emissions from the changes to those emission limits.

Rule 333 Section K.2.a refers to the limits in these tables and requires that:

1. **engines previously subject to the April 17, 1997 emission limits continue to comply with the emission limits until such time that a revised emission limit is required, and**

2. **engines becoming subject to a new or stricter emission limit comply within two years of the adoption of the modified rule.**

Tables 1 and 2 are therefore an integral extension of the Section K Compliance Schedule provisions.]

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Appendix H
Santa Barbara County
Summarized Data on Emission Reductions, Cost-Effectiveness, and Incremental Cost-Effectiveness

Table 1. EMISSION REDUCTIONS[a]

SOURCE AND EQUIPMENT DESCRIPTION	STATIONARY SOURCE No.	FACILITY No.	DEVICE No.	ESTIMATED EMISSION REDUCTIONS (INCREASES)			
				NOx (tons/day)	NOx (tons/year)	ROC (tons/day)	ROC (tons/year)
County of Santa Barbara - Foxen Canyon, two 78 bhp compression ignition engines	03706	03706	104269 & 106429	0.0019	0.7000	(0.0000)	(0.0113)
Pacific Operators Offshore, Inc., PF Hogan, 440 bhp compression ignition engine for well drilling	08001	08001	007107	0.0057	2.0821	(0.0000)	(0.0040)
Pacific Operators Offshore, Inc., PF Houchin, 440 bhp compression ignition engine for well drilling	08001	08002	007108	0.0040	1.4542	(0.0000)	(0.0028)
Purisima Hills LLC - Barham Ranch, H.P. Boyne Lease, six 65 bhp uncontrolled spark ignition engines	01153	03777	005908, 005909, 005910, 005911, 005912, & 009015	0.0062	2.2742	(0.0018)	(0.0168)
			TOTALS	0.0178	6.5105	(0.0001)	(0.0349)

[a] Based on engines in the 2005 Emission Inventory.

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Table 2. COST-EFFECTIVENESS[a]

SOURCE	TYPE ENGINE	RATING (Bhp)	UNCONTROLLED NOx EMISSIONS (tons/year)	PROPOSED NOx LIMIT (ppmv @ 15% O2)	NOx EMISSIONS REDUCED (tons over a ten-year period)	INITIAL TUNING COSTS ($)	NPV OF INCREASED ANNUAL OPERATING AND MAINT. COSTS ($)	INITIAL TUNING COSTS PLUS NPV OF THE ANNUAL O & M COSTS ($)	COST-EFFECTIVENESS ($/ton)
County of Santa Barbara - Foxen Canyon (SSID 03706, DID 104269)	CI	78	8.99	700	27.37	2000	40,437	42,437	1,550
County of Santa Barbara - Foxen Canyon (SSID 03706, DID 106429)	CI	78	1.21	700	3.68	2000	40,437	42,437	11,532
Pacific Operators Offshore, LLC, Platform Hogan (SSID 8001, DID 007107)	CI	400	4.81	700	10.95	2000	57,609	59,609	5,444
Pacific Operators Offshore, LLC, Platform Houchin (SSID 8001, DID 007108)	CI	400	3.36	700	7.65	2000	57,609	59,609	7,795
Purisima Hills LLC (SSID 01153, DID No. 005908, 005909, 005910, 005911, 005912, & 009015)	SI	65	1.13	300	3.79	2000	38,646	40,646	10,724

[a] Based on engines in the 2005 Emission Inventory.

Table 3. INCREMENTAL COST-EFFECTIVENESS[a]

SOURCE	TYPE ENGINE	RATING (Bhp)	INITIAL TUNING COSTS ($)	LOW EMISSION TUNING NPV ($)	LOW EMISSION TUNING NOx TOTAL EMISSION REDUCTIONS (tons)	LOW EMISSION TUNING METHOD COST-EFFECTIVENESS ($/ton)	ELECTRIFICATION NPV ($)	ELECTRIFICATION NOx TOTAL EMISSION REDUCTIONS (tons)	ELECTRIFICATION METHOD COST-EFFECTIVENESS ($/ton)	INCREMENTAL COST-EFFECTIVENESS ($/ton)
Purisima Hills LLC (SSID 01153, DID No. 005908, 005909, 005910, 005911, 005912, & 009015)	SI	65	2000	40,646	3.79	10,724	44,270	11.35	3,900	479

[a] Based on engines in the 2005 Emission Inventory.

Appendix I
Santa Barbara County
Identification of Existing Federal and APCD Regulations that Apply to the Same Equipment or Source Type Covered in Rule 333

This section is included to comply with the California Health & Safety Code Section 40727.2 requirements.

FEDERAL AIR POLLUTION CONTROL REQUIREMENTS

There are several federal air pollution control requirements that apply to the same equipment or source types covered by Rule 333. In general, engines subject to Rule 333 may be subject to one or more of the following federal requirements.

1. 40CFR60, Standards of Performance for New Stationary Sources, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
2. 40CFR60, Standards of Performance for New Stationary Sources, Subpart JJJJ, Standards of Performance for Stationary Spark-Ignition Internal Combustion Engines
3. 40CFR63, National Emission Standards for Hazardous Air Pollutants for Source Categories, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
4. 40CFR89, Control of Emissions from New and In-Use Nonroad Compression-Ignition Engines[a]
5. 40CFR91, Control of Emissions from Marine Spark-Ignition Engines
6. 40CFR94, Control of Air Pollution from Marine Compression-Ignition Engines
7. 40CFR1048, Control of Emissions from New, Large Nonroad Spark-Ignition Engines

SANTA BARBARA COUNTY AIR POLLUTION CONTROL DISTRICT REQUIREMENTS

Table 1 shows the rules that apply to internal combustion engines.

Table 1. RULES THAT APPLY TO INTERNAL COMBUSTION ENGINES

GENERIC REQUIREMENTS	AFFECTED EMISSION UNITS	BASIS FOR APPLICABILITY
RULE 201: Permits Required	All emission units	Emission of pollutants
RULE 202: Exemptions to Rule 201	Applicable emission units	Insignificant activities/emissions, per size/rating/function
RULE 210: Fees	All emission units	Administrative
RULE 212: Emission Statements	All emission units	Administrative
RULE 302: Visible Emissions	All emission units	Particulate matter emissions

[a] Compression ignition emergency standby engines are not subject to Rule 333.

GENERIC REQUIREMENTS	AFFECTED EMISSION UNITS	BASIS FOR APPLICABILITY
RULE 303: Nuisance	All emission units	Emissions that can injure, damage or offend.
RULE 304: PM Concentration – North Zone	Each PM source	Emission of PM in effluent gas
RULE 305: PM Concentration – South Zone	Each PM source	Emission of PM in effluent gas
RULE 309: Specific Contaminants	All emission units	Combustion contaminants
RULE 310: Odorous Org. Sulfides	All emission units	Emission of organic sulfides
RULE 311: Sulfur Content of Fuel	All combustion units	Use of fuel containing sulfur
RULE 333: Control of Emissions from Reciprocating IC Engines.	Internal combustion engines	Engines rated at 50 brake horsepower and greater
REGULATION VIII: New Source Review	All emission units	Addition of new equipment or modification to existing equipment. Applications to generate ERC Certificates.
REGULATION XIII (RULES 1301-1305): Part 70 Operating Permits	All emission units	A stationary source is a major source.

A review of Table 1 indicates that there are no overlapping or conflicting averaging provisions, units, or any other pertinent provisions associated with emission limits.

Appendix J
Santa Barbara County
Public Comments and the APCD Responses

Greka Energy,
January 4, 2006

1) Industry had spent considerable time in discussion with APCD for the purpose of "temporary engine replacement". With the opening of Rule 202 it seems that this would be the perfect time for inclusion of these needed provisions. "Identical replacement" is another issue to consider while the Rule is open for revisions.

In general, the APCD does not see the necessity to modify the rules on equipment replacements. We have a detailed policy and procedure on this subject titled "Equivalent Routine Replacement." It is P&P 6100.073, which is available on our web page. To date, Greka Energy has not made such a request.

In addition, the APCD has a permit condition to allow for temporary replacement of an internal combustion engine in need of routine repair or maintenance. A separate permit will not be required for the replacement engine; however the permit condition does have certain parameters that must be met in order for the temporary engine to be used without the need for a permit.

2) Various tables in the Background Paper state that engines at Armelin Lease are rated at 62 bhp. All those engines were derated to less than 50 bhp long time ago. The listing is incorrect.

The background report is using the bhp ratings from the current PTO for the facility. Greka Energy should contact the APCD compliance staff to clarify their comment.

3) Rule 202.F.1.g: It is recommended that reference needs to be limited to turbines that are certified by ARB. References to natural gas, PUC, and General Order 58-A are requested to be removed. This would keep the exemption available for future certification of other types of fuels by ARB.

The proposed Rule 202.F.1.g allows an exemption for packs of gas turbine, provided the turbines are certified by ARB to meet the distributed generation standards. Referencing General Order 58-A ensures that the fuel used will comply with APCD requirements. For example, fuel that does not meet this standard has the potential for violating APCD Rule 311 and would require gas scrubbing equipment along with monitoring.

4) For determining whether a source is circumventing the rules or not, I would like to suggest incorporating a stacking test. If the entire system is shut down by turning off one of the units then the units are stacked.

The criterion we use is the engineering design basis and system demands. Such analysis will involve looking at the equipment's or system's maximum energy needs or demands under a worst-case scenario.

For example, a project has ten 1 million British thermal units per hour (MMBtu/hr) boilers with a demand that all be required at any one time. We would consider the configuration and demand equivalent to a single 10 MMBtu/hr boiler. However, if a source installs two 4 MMBtu/hr boilers (fired exclusively on natural gas), with one for primary use and one as standby, the design heat demand is
4 MMBtu/hr. Thus, the boilers in this configuration are not considered to be used in the same process (stacking).

5) Removing the 500 bhp exemption is not on the list of EPA and CARB concerns. Overall it does not fit into the stated "General reason for revising the rules". Having established a 25 ton/yr limit in a separate section of the Rule is not a strong enough reason to impose costly obligations on operators.

*The proposed revision has been amended to show an aggregate threshold of 400 bhp. The lower aggregate figure is needed since the single engine exemption threshold was reduced to **less than 50 bhp** from **100 bhp** and derated engines will require permitting. Deleting a bhp gatekeeper altogether for sources with multiple engines in the > 20 to < 50 bhp range would allow unmitigated growth and would become a new source review issue. Thus, the APCD is lowering the aggregate threshold figure to 400 bhp.*

6) Derating of engines can be easily verified by inspectors in the field. It has been done on various inspections that I have witnessed. Additionally,

removing exemptions for those engines could complicate Greka's operations by having some facilities with both permitted and unpermitted engines located side by side.

A large source should already be keeping an accurate inventory of their engines and what requirements apply for each one.

7) Monthly testing with a portable NOx analyzer is costly while the air quality benefit is unquantifiable. Greka believes that quarterly tests are adequate.

The currently proposed provisions require portable emissions analyzer checks every quarter. This frequency will change to be monthly if an engine is found to be exceeding an emission limit. The monthly frequency will continue until Rule 333 compliance is demonstrated in three consecutive months (by portable analyzer readings or source test results).

Also, the quarterly requirement will only apply to engines that operate in excess of 20 hours per quarter.

8) If the ICE exemption limit is changed to 25 ton/yr, the addition of a bhp exemption limit could facilitate easier compliance with the Rule.

The APCD agrees to use an aggregate brake horsepower rating instead and has modified Rule 202.F.1.f to be 400 bhp for engines in the > 20 to < 50 bhp range.

Vandenberg Air Force Base,
January 10, 2006

a. Rule 102 comments:

(1) VAFB requests the APCD add a definition for process and concurs with the 8 Dec 05 APCD request for examples of processes for inclusion in the APCD staff report.

As discussed at the December 8, 2005 Workshop, the APCD believes that this question is best handled by providing real-life examples. Our general concern is that a process that effectively exceeds the exemption threshold should obtain a permit. We look at the engineering design basis and system requirements in making these stacking determinations.

b. Rule 202 comments:

(1) 202.d.5 - Temporary equipment: VAFB requests the APCD add *within 14 days* after the clause …*who shall make a determination in writing*… Including an APCD suspense provides the operator the opportunity to plan a temporary operation without the risk of incurring an APCD enforcement action by performing the temporary operation only to find out at some future date that the APCD denied the temporary use.

The 202.D.5 exemption allows a source to move forward without having to wait for the APCD's approval. If there is any doubt as to whether the exemption applies, the source should wait for APCD concurrence. Based on our experience, those wishing APCD concurrence do get our feedback with 14 days already.

(2) 202.d.7 - Stationary Source Permit Exemption: Add *within 14 days* after the clause …*who shall make a determination in writing*…

A determination that an entire source may be exempt by the 1 ton per year exemption may take the APCD more than 14 days.

(3) 202.d.15 - Process: VAFB concurs with the 8 Dec 05 APCD request to stakeholders for providing specific examples in the Background Paper similar to the examples used for the Net Emission Increase (NEI) discussed in the 1997 Regulation II/VIII Staff Report.

See response to the Greka Energy January 4, 2006, item 4.

Additionally, VAFB understands the APCD does not apply this verbiage to Prohibitory Rules or New Source Performance Standards (NSPS) applicability.[1]

On the applicability of prohibitory rules or NSPS requirements to stacked equipment, the APCD applies the prohibitory rules and other regulations (e.g., NSPS, NESHAPS) on an individual device basis unless otherwise specified in the rule or regulation.

(4) 202.d.16: The 25 ton construction cap. The existing exemption states:

> Notwithstanding any exemption in these rules and regulations, if the combined emissions from all construction equipment used to construct a

[1] APCD 8 December 2005 workshop response to VAFB question.

stationary source ***which requires an Authority to Construct*** (emphasis added) have the potential to exceed 25 tons of any pollutant, except carbon monoxide, in a12 month period, the owner of the stationary source shall provide offsets as required under the provisions of Rule 804 and shall demonstrate that no ambient air quality standard would be violated.

(a) VAFB is concerned that an interpretation might be made that includes all construction projects within a stationary source for the 25 ton total. For example, VAFB does not believe that a water line project or construction of a building, not requiring an ATC, is subject to this 25 ton cap. This is analogous with other construction projects occurring in Santa Barbara County (e.g. Housing developments or large parking structures). VAFB request the Background Paper clarify that it does not apply to construction projects where no specific APCD ATC is required. This provides a straightforward rule interpretation.

The method for determining that a construction activity may be subject to offsets under the proposed new Rule 202.D.16 provision will be the same method used for the current Rule 202.F.3 provision.

(b) 202.d.16: Per the discussion occurring at the 8 December 2005 APCD workshop between VAFB and Mr. Mike Goldman, VAFB requests the APCD replace the phrase *Potential to Exceed* with *Projected Actual*. Mr. Goldman stated this is the APCD intent.

We concur. The APCD's practice has been to use "projected actual" emissions for this calculation.

(5) United States government owned marine vessels. 202.F.1.b states: Engines used to propel marine vessels, except vessels associated with a stationary source which shall be regulated as specified under the provisions of Regulation VIII.

(a) VAFB proposes inclusion of the following verbiage for Rule 202.F.1.b after Regulation VIII: *except marine vessels owned by the United States Government, or its allies, supporting military operations.*

(b) Alternatively, in lieu of adding additional language to the rule, VAFB proposes the APCD clarify within the Background Paper that the intent of 202.F.1.b does not apply to above-mentioned marine vessels.

(c) VAFB believes these marine vessels operate similarly to on-shore military tactical support equipment and operations and should be exempted from permitting requirements or subject to New Source Review provisions. These marine vessels owned by the U.S. Department of Defense, or its allies, and the National Guard, are deployable, used in combat, combat support, combat service support, tactical or relief operations, or training for such operations.

(d) VAFB considers these types of military vessels and training exercises as essential to maintaining National Defense. Requiring APCD permits impacts the Department of Defense's ability to perform essential missions in a timely manner and could pose unacceptable restrictions on equipment use and/or operational scenarios.

(e) Emissions associated with these marine vessel operations are not significant. Attachment 2 provides emissions associated with a proposed project at VAFB. VAFB emphasizes that these marine vessel activities occur on an as-needed basis. The last military marine operation occurred in 2002 with the vessel anchored outside the California Coastal Waters boundary.

The APCD has included provisions in Rule 202, Sections F.7, F.8, and P.14 to address the emissions from marine vessels.

(6) 202.F.1.d – Emergency use: Add the following verbiage after internal combustion engines: *or gas turbine engines.*

(a) VAFB believes these units can be used for emergency standby and should receive the 200 hour exemption.

(b) In the past, VAFB considered replacing diesel back-up generators by installing new cleaner burning gas turbines or micro turbines. Unfortunately, APCD rules do not exempt emergency use for gas turbines. These units are subject to APCD New Source Review (NSR)[2]. Because of these NSR requirements, VAFB continues to operate diesel engines negating the opportunity for an air quality benefit.

[2] NSR at VAFB includes offsetting, an AQIA and a HRA.

(c) Attachment 3 provides an emission comparison for a non-EPA certified engine, a natural gas-fired turbine and an EPA certified Tier II engine.

It has been our experience that microturbines operate best in a continuous operating mode and are not generally used in a standby emergency mode.

We are proposing amendments to Rule 202.F.1.g to allow for limited "grouping/multi-packing" of microturbine engines under certain conditions. Such systems allow increases in power output as the electrical demands increase.

Due to gas turbines generally not being used for emergency standby coupled with the new 202.F.1.g provisions, the APCD does not agree that gas microturbines need to be added to the emergency engine exemption (Rule 202.F.1.d).

(7) 202.F.1.f. Multiple-engines exemption. VAFB requests the APCD to:

(a) Change the PTE requirement to actual emissions[3], or

(b) Reduce the current 500 horsepower cap to a lower horsepower cap that is equivalent to a 25 ton limit, or

(c) Provide the operator a choice to either calculate the actual emissions or track the horsepower.

(d) If the 25 ton per year cap remains unchanged, VAFB requests the APCD provide clarification for calculating the potential to emit (or projected actual emissions) associated with equipment operating on a temporary basis at a stationary source.

The APCD agrees to use an aggregate brake horsepower rating instead and has modified Rule 202.F.1.f to be 400 bhp for engines in the > 20 to < 50 bhp range. The approach to allow sources to choose between tracking actual emissions or bhp would add too much complexity and would increase APCD costs. For that reason, a single methodology is used.

(8) 202.U.3 states "Equipment used in wipe cleaning operations provided that the solvents used do not exceed 55 gallons per year. To qualify for this exemption, the owner or operator shall maintain records of the amount of solvents used for each calendar year. These records shall be kept for a minimum of 3 years and be made available to the District on request. Solvents meeting the criteria of 2.b. or c. above do not contribute to the 55 gallon per year limitation."

(a) VAFB proposes the APCD remove the 55 gallon limit and replace it with an emission cap. Throughput limits encourage maximum VOC-content use and penalize an operator who decides to apply a low VOC solvent. As written, the 55 gallon does not provide an incentive to eliminate higher emitting VOC solvents applied in wipe cleaning operations.

This exemption was added for and is primarily used by small businesses. It is far easier for the companies to understand the requirements in terms of 55 gallons than mass emissions

c. Rule 333 comments:

(1) 333.E.4. VAFB requests the APCD provide a brief discussion in the Background Paper regarding the new limits for ROC and CO for diesel engines. At the 8 December 2005 workshop, Mr. Doug Grapple indicated these limits came from the CARB RACT/BARCT Guidance document. For clarity, VAFB requests the APCD provide that discussion in the staff report.

*The emission limits for the **spark ignition** engines stem from the ARB RACT/BARCT determination. The basis for the **compression ignition** engine emission limits stem from other districts' rules. We are using the NOx and ROC limits from the Sacramento Metropolitan AQMD, Rule 412, and the CO limits from the Ventura County APCD Rule 74.9. This information is found within the rule development support document.*

(2) 333.F.3 and I.8. VAFB requests the APCD delete the monthly NOx box requirement because of potential inaccuracies associated with different types of monitoring equipment. VAFB is concerned that the lack of accurate traceability may result in an APCD enforcement action during biennial source testing. At the 8 December 2005 workshop, Mr. Doug Grapple indicated this requirement came from the CARB RACT/BARCT Guidance document.

Periodic NOx box testing and method testing are components of the existing Rule 333 compliance verification provisions. These components are also within the CARB RACT/BARCT Determination.

[3] VAFB understands additional recordkeeping is required to track these actual emissions.

The currently proposed provisions require portable emissions analyzer checks every quarter. This frequency will change to be monthly if an engine is found to be exceeding an emission limit. The monthly frequency will continue until Rule 333 compliance is demonstrated in three consecutive months (by portable analyzer readings or source test results).

Also, the quarterly requirement will only apply to engines that operate in excess of 20 hours per quarter.

(3) 333.I – Requirements, Source Testing: If the APCD demonstrates that the portable analyzer, as discussed above, meets the rigorous protocols for accuracy, VAFB requests the APCD add the following verbiage:

(a) 333.I.2. *The APCD may waive the source testing requirements if monthly compliance tests demonstrate continued compliance over 12 consecutive months.*

(b) VAFB advocates if a source can demonstrate and maintain compliance with the emission standards over 12 consecutive months, there should be no additional biennial source testing compliance requirements.

Source testing using EPA or ARB test methods is a necessary part of the APCD's compliance program and requiring these biennial source tests is consistent with the ARB RACT/BARCT Determination.

(4) 333.I.7.c. VAFB requests the 15 minute clock average be deleted or add additional discussion in the Background Paper. At the 8 December 2005 workshop, Mr. Doug Grapple indicated these limits came from the CARB RACT/BARCT Guidance document. VAFB is concerned that an engine complying with a 30-minute source test will still receive an NOV where any 15 minute clock average exceeds a Section E limit during a source test.

The proposed amended Rule 333, Section I.7.c no longer refers to a 15 minute clock average. This provision now indicates:

At a minimum, three 30 minute test runs shall be performed, and the average concentration from the three runs shall be used for determining compliance.

Southern California Gas Company, January 18, 2006 (Rule 202)

Southern California Gas Company (The Gas Company) appreciates the opportunity to provide comments on the District's proposed revisions to Rule 202 - Permit Exemptions. Our comments address stacking, and the new micro-turbine exemption. We request modification of the proposed micro-turbine exemption (Rule 202.F.1.g).

The Gas Company appreciates that the District has included a proposed exemption for power-generating micro-turbines in Rule 202. As you may know, last year The Gas Company and the District resolved a number of permitting issues during a meeting with Terry Dressler, Peter Cantle, Mike Goldman, and District Council, Bill Dillon. At that meeting, Peter and Terry agreed that an exemption for power-generating micro-turbines above a heat input rating of 3 million British thermal units (BTU) made sense to promote the use of micro-turbines for distributed generation. We also discussed that the next time Rule 202 was modified such an exemption would be pursued.

Power-generating micro-turbines have been eligible for exemption under the Rule 202 provision for gas turbine engines with a maximum heat input rating of 3 million BTU. The proposed rule revisions in 202.D.15 clarifies that one must aggregate the heat input of multiple units in a single process up to a combined total of 3 MM BTU/Hr. The Gas Company appreciates that the District is codifying its stacking policy with the addition of this language. The proposed exemption language in draft Rule 202.F.1.g gives special consideration for power-generating micro-turbines as discussed between the District and The Gas Company at the 2005 meeting. The special consideration would allow for multiple power-generating micro-turbines in a single process that exceed a combined total of 3 MM BTU/Hr if their combined potential annual emissions do not exceed 1 ton for each affected pollutant except carbon monoxide (CO), which shall not exceed 5 tons.

The proposed exemption for multiple power-generating micro-turbines in 202.F.1.g is inconsistent with other exemptions allowed in Rule 202. We understand that the language for the emission limits in 202.F.1.g came from another section of Rule 202 or another district rule. The other exemptions with emission limits in Rule 202 most often have higher emission limits. For example, Rule 202.D.16 and

202.F.1.f have limits for potential to emit of 25 tons per year except CO, which has no limit. Although the limits of 1 ton and 5 tons are the same in both 202.D.5 and 202.F.1.g, 202.D.5 uses projected actual emissions versus 202.F.1.g which uses potential emissions. Potential emissions are always higher than actual emissions as potential emissions are calculated with operations of 24 hours per day and 365 days per year rather than a more realistic operation schedule.

We based the Rule 202.F.1.g one ton and five tons (CO) thresholds on the thresholds in the Rule 202.D.5 exemption that was added in 1997. The emission thresholds in Rule 202.D.5 were developed based on input received from EPA. We recognize that "potential annual emissions" are typically greater than "projected actuals." However, we decided to use "potential annual emissions" to be more protective.

The four certified power-generating micro-turbines that are being installed at The Gas Company's La Goleta storage field do not meet either 202.D.15 or the proposed criteria of Rule 202.F.1.g. Each of these 60 kW turbines is rated at approximately 0.8 MM BTU/Hr for a combined total heat input of approximately 3.2 MM BTU/Hr. This combination exceeds the exemption threshold of 3 MM BTU/Hr, thus the equipment does not qualify for exemption under 202.D.15. Using the emission standards specified by CARB for certification to calculate potential to emit, the four 60 kW turbines meet all parts of 202.F.1.g except for the volatile organic compound (VOC) and CO limits. Therefore, the proposed annual potential to emit limits precludes exemption for the four micro-turbines. This is the outcome despite the fact that the manufacturer's emission factors are less than the CARB standards, and annual actual emissions will be less than1 ton and 5 tons per year for CO. Calculations for potential emissions of the 60 kW micro-turbines at the Laguna Sanitation District were also based on CARB's certification emission standards rather than manufacturer's emission factors. It appears that there may be no qualifying equipment if the 202.F.1.g exemption remains as currently drafted.

Calculations using limits in the distributed generation regulation and based on manufacturer's data on fuel consumption show the number of units that can be stacked without exceeding the emission limits thresholds of proposed Rule 202.F.1.g is a function of how clean they operate. The distributed generation regulation has stricter emission standards starting in 2007, which may allow the stacking of more units per project under the 1 ton and 5 ton limits.

The Gas Company requests that proposed 202.F.1.g be changed to read as follows:

> • Gas turbine engines with a maximum heat input rating of 3 million British thermal units per hour or less at standard conditions. No gas turbine engine otherwise subject to permit shall be exempt because it has been derated. For the purposes of this section, power generating microturbines fired on natural gas which meets General Order 58-A of the Public Utility Commission that have been certified by the Air Resources Board to meet the applicable distributed generation standards certified by a current Air Resources Board Executive Order are not subject to the provisions of Section D.15 *if such power generating microturbines at a stationary source have a total uncontrolled potential to emit for any affected pollutant, except carbon monoxide of 25 tons or greater.*

We believe this is very reasonable request as many other exemptions contain no limit for carbon monoxide and carbon monoxide is not a problem pollutant in Santa Barbara County. As you know, Santa Barbara County is attainment for both the National and State Ambient Air Quality Standards for carbon monoxide. We believe that these suggested changes will promote the use of cleaner micro-turbines for distributed generation. In addition, the language change assures that the special consideration for power-generating micro-turbines will in fact allow additional installation of this clean technology.

The EPA indicated in a letter dated August 8, 1995 that the proposed 202.D.5 exemption for CO be removed because, "Federal requirements do not allow any NSR exemptions for CO emissions." Thus, a gatekeeper for CO is needed to ensure EPA approval.

Southern California Gas Company, January 18, 2006 (Rule 333)

Southern California Gas Company (The Gas Company) appreciates the opportunity to provide comments on the District's proposed revisions to Rule 333 - Engine Requirements. Our comments address proposed Rule 333.D Requirements – Engine Identification, Meters, and Continuous Monitoring

Systems, and Rule 333.I Requirements - Source Testing. We also are requesting modification of parts of the proposed rule.

Proposed Rule 333.D.4 will require engines of 1000 rated brake horsepower (bhp) or greater and permitted to operate in excess of 2000 hours per year to install and maintain continuous emissions monitoring systems (CEMS) for oxides of nitrogen (NOx) and oxygen (O2). At The Gas Company's La Goleta storage field, engine MU #9, an 1100 bhp engine, would be subject to this requirement. The District's background paper, dated 11-21-2005, notes that this proposed requirement stems from the CA Air Resources Board (CARB) Determination of Reasonably Available Control Technology (RACT) and Best Available Retrofit Control Technology (BARCT). The Gas Company believes that CARB's RACT/BARCT determination allows for other equipment or methodology besides just CEMS. CARB's RACT/BARCT determination, on page IV-17, §J – Continuous Monitoring, states, "CEMS may be used to fulfill this requirement. Each district's Air Pollution Control Officer may consider alternatives, if adequate verification of the systems accuracy and performance is provided."

We are now proposing that the 333.D.4 provisions apply to "new" engines only. The APCD believes the requirement to use a CEMS is the most effective compliance tool.

We request and believe that there are many reasons that our engine should be grandfathered, and not be required to install continuous monitoring equipment. They are as follows:

• There will be no discernable air quality benefit from installation of CEMS on the three existing engines (including MU #9) in this category. This is bolstered by the fact that MU #9 has never been out of compliance in any quarterly emission inspection or biennial source test.

• MU #9 is on the La Goleta storage field Title V permit and is subject to stringent Title V requirements.

• The CARB costs for CEMS cited in Table 4.7-6 of the Rule 333 Background Report, do not capture the full cost of CEMS installation, operation, and maintenance.

• What CARB identifies as "Capital Cost" is only enough to cover the purchase of the CEMS cabinet and sampling system. In our experience, quality CEMS equipment costs between $80,000 - $100,000, but this does not include: engineering, procurement, and permitting; infrastructure improvements including electrical, communications, air conditioning, structural supports, footings, or housings; construction, installation, commissioning, certification, and training; data acquisition and reporting systems ($20,000 - $40,000 for quality systems with good user interface); and site specific requirements such as special electric codes (Class 1 Division 2 hazardous locations).

• Table 4.7-7 references a $7,500 annual operational and maintenance cost. This value will cover calibration gas, consumable and spare parts, and quality assurance activities (quarterly CGA, and annual RATA,) but does not capture:

o Labor for daily system check and troubleshooting of CEMS system problems,

o data validation and reporting,

o vendor support or service agreements for CEMS equipment and/or data acquisition systems, and

o electricity used by analyzers, heated sample lines, and air conditioning.

For example, in 2002, The Gas Company installed 5 CEMS at one of our facilities for a total project cost of $1,200,000, or $240,000/CEMS. The $63,000 cost used in Table 4.7-7 is quite low; it realistically costs approximately $200,000 to install one CEMS. In addition, The Gas Company has found that it takes approximately one full time equivalent position (whether employee or contract) to support 5 CEMS. We estimate that realistic annual CEMS operation and maintenance costs are approximately $20,000 - $25,000.

In summary, we request that our engine be grandfathered, and that we not be required to install continuous monitoring equipment.

The APCD has added text to the proposed Rule 333.D.4 provision that makes it applicable to new engines only.

The section of proposed Rule 333.I Requirements - Source Testing adds many new provisions. Our comments on this section are as follows:

1. Proposed Rule 333.I.1 will require emissions source testing at both an engine's maximum achievable load and under the engine's typical duty cycle. At La Goleta, our goal is to run the engines at maximum horsepower, which gives maximum efficiency. But during some times of the year, this is not possible.

As you may know our facility is seasonal, and the engines are used regularly during the injection season (April through October) and rarely during withdrawal season (November through March). Our La Goleta facility is not able to create artificial additional load during the early part of the injection season, nor during times of lower gas flow from the transmission system (low suction pressure). During the early part of the injection season, the storage reservoirs contain less gas inventory due to winter withdrawals. This depleted condition has lower back pressure and lower horsepower is required for gas injection. Because of the varying nature of our operations, it would be difficult to define the "typical duty cycle" for any of our compressor engines.

We request that this section be modified such that emissions source testing of our engines will be performed at their achievable load at the time of the test, whatever that may be due to storage inventory and gas availability from the transmission system. In general, this load is within 85% of the maximum achievable load, which means the typical load range spans only 15% of the engine's rating. When the South Coast Air Quality Management District (SCAQMD) had concerns about RECLAIM exhaust flow CEMS accuracy over the operating range, they recognized the difficulty in obtaining specific loads for testing, and the fact that a given load can be representative for a wider range. As a result, they established guidance to require testing in each 20% load increment over several years of testing. Since our "typical duty cycle" is within 20% of maximum achievable load, in SCAQMD we did not need to conduct tests at multiple loads. Testing at multiple loads is not justifiable and is onerous. We also note that this requirement for dual load testing is not a requirement of either the SCAQMD or the San Joaquin Valley Unified Air Pollution Control District, thus we believe that this requirement is not part of any "all feasible measures" rule in the state and could be removed or modified.

During an annual or biennial comprehensive source test, it is our practice to test emission units at the maximum load feasible. At a minimum, source test loads must reflect loads representative of typical operations. For a monthly or quarterly I&M, we will accept tests at normal operational loads. Also, the quarterly portable analyzer monitoring requirement will only apply to engines that operate in excess of 20 hours per quarter.

2. Proposed Rule 333.I.7.c has new requirements that "Any 15 minute clock average exceeding a Section E limit during any test run constitutes an emission violation". The new 15 minute averaging period is a de facto lowering of the emission standard. The nature of rich-burn engines and their control technology does not support such a short averaging time. Emissions of these units are not steady state and will wander both above and below the limit. Shorter averaging times just create more possibility for violations and fines despite the overall emissions being well within the limit.

To achieve the lower emissions average needed for compliance with the 15 minute rolling average, it is possible that existing control systems will need to be completely redesigned. In the background paper, we found no discussion of these potential cost increases to meet this new requirement. Further, we found no specific averaging time is required in CARB's RACT/BARCT determination. La Goleta's air district permit specifies three – 40 minute test periods, thus we have a 40 minute averaging period. We request that our permitted, existing 40 minute averaging period remain in effect.

See response to the VAFB January 10, 2006 letter, item c(4).

3. Proposed Rule 333.I.8 has new requirements for monthly monitoring with a portable analyzer. "During any month in which a source test is not performed and an engine is operated in excess of 5 hours, a portable analyzer shall be used to take oxides of nitrogen and carbon monoxide emission readings and engine exhaust oxygen concentration readings to verify compliance with the emission limits or percent control specified in Section E. If such an engine cannot be operated for portable analyzer emissions testing due to mechanical failure or lack of fuel, the monitoring requirement may be waived provided written Control Officer approval is obtained prior to the end of the month. All emission readings shall be taken at an engine's maximum achievable load and under the engine's typical duty cycle."

The Gas Company's concerns with this new requirement are as follows:

a. Currently La Goleta personnel conduct quarterly emissions testing as required by existing Rule 333. Additionally, for engines 2 through 8, we parametrically monitor the engine exhaust by observing the oxygen sensor output at a minimum of one time per six hours of engine operation. In accordance with federally

mandated Compliance Assurance Monitoring (CAM), we log a minimum of one oxygen sensor output millivolt read for each day the engine operates.

The engines affected by this proposed rule change are Main Unit Gas Compressors. As previous discussed, operation of these Main Units is predominately seasonal, occurring during the warmer months of the year when gas is available for storage. During the colder months, gas is taken out of storage and the engines are rarely needed. However, in the colder months these engines operate sporadically if there is excess gas available for storage in the Southern California gas transmission system. Availability of gas in the gas transmission system is a function of supply, demand, weather, and CA Public Utilities Commission's (CPUC) rules pertinent to gas transmission and storage. The decision of, if and when to operate these engines is made on an hourly/daily basis by The Gas Company's Gas Control Operations in Los Angeles as they continually balance the transmission system. Operations of these engines may occur any day, anytime and for any length of time. The facility operates with a one person crew during nights, weekends, and holidays. It would be extremely burdensome and dangerous to expect the one person on duty to sample the operating engines exhaust during the periods of infrequent and sporadic use. It is likely that portable analyzer emissions testing would be missed, not from neglect, but simply from the nature of the gas transmission system, its interaction with the facility, and work load of the one person crew on nights, weekends, and holidays shifts.

Portable analyzer emissions' testing is not simply a matter of starting an engine and checking the exhaust. Our engines need gas to compress to have a load which develops horsepower. Excess gas for compression is not always available, particularly during the cold months in which the primary mode of operation is withdrawal rather than injection. Even with the current quarterly portable analyzer emissions testing requirement, we have to request Gas Control Operations to artificially manipulate the system to provide enough gas to compress. Because of sporadic operations during the injection season, we often start the engines for the sole purpose of portable analyzer emissions testing, creating unnecessary emissions, just to stay in compliance with the quarterly inspection frequency.

The Gas Company requests that the requirement for portable analyzer emissions testing remain quarterly during low season operations. This suggested alternative for seasonal operations could be conditional upon written approval from the Air Pollution Control Officer. For example, La Goleta could be approved for an alternate monitoring schedule, such as: January through March-Quarterly, April through September-Monthly, and October through December-Quarterly. We feel that we have provided ample justification for such an alternative.

See the response for Greka Energy, January 4, 2006, item 7.

Western States Petroleum Association, January 18, 2006

The Western States Petroleum Association (WSPA) is a non-profit trade association representing a full spectrum of companies which explore for, produce, refine, transport, and market petroleum products in the six western states. WSPA staff and its Coastal Air Strategy Group (CASG) members have reviewed the November 21, 2006 [SIC] Background Paper, Revisions to Definitions (Rule102), Permit Exemptions (Rule 202) And Engine Requirements (Rule 333). In addition, WSPA staff and its CASG members participated in the December 8, 2005 rulemaking workshop. Based upon the workshop discussion and our review of the background paper, WSPA's comments and questions on the proposed rulemaking are attached and organized in the following manner:

1) General comments on the proposed rulemaking including removal of Rule 202 exemptions for internal combustion engines used for offshore drilling operations and construction projects.

2) Consistency of the SBCAPCD proposed rulemaking with EPA's 1995 rulemaking comments.

3) Consistency of the SBCAPCD proposed rulemaking with CARB's Reasonably Available Control technology (RACT) and Best Available Retrofit Control Technology (BARCT) Guidelines, dated November 1, 2001.

General Comments on the Proposed Rulemaking

1) Rule 202.F.6: Deletion of the exemption for offshore drilling activities

WSPA and its member companies are very concerned over the proposed elimination of the drilling exemption contained in Rule 202. These concerns center not only on the proposed deletion of this long standing exemption, but the manner in which this proposed revision was presented to WSPA and our members. The SBCAPCD has on several occasions informed WSPA that it did not intend to eliminate this exemption. The SBCAPCD did not provide any prior notice to WSPA of this exemption deletion before the District's Background Paper was released for comment. This process was very perplexing to WSPA, given the fact that the SBCAPCD is well aware of the importance of this exemption to WSPA and its members.

The revisions to Rule 202.F.6, adopted by the SBCAPCD Board in April 1997, provided a 25-ton gatekeeper for drilling operation offshore. As with other Rule 202 exemptions approved by the Board in April 1997, this gatekeeper was deemed to be protective of air quality. It should be noted that in 1997 these Rule 202 revisions were adopted when Santa Barbara County was in nonattainment for the federal ozone standard. Currently, Santa Barbara County is in attainment of the federal ozone standard, and is on the threshold of attaining the State of California ozone standard.

In the Background Paper, the SBCAPCD states that: "Portable offshore equipment engines no longer need their own exemption in Rule 202. The owners and operators of such engines should be registering them in the statewide portable equipment registration program [PERP]." The revisions to Rule 202 adopted by the Board in March 2005 and promulgated by EPA into the Part 55 OCS regulations allow the use of PERP engines offshore. However, there are many engines which are used for drilling activities offshore that are either not currently eligible for the PERP, or the engines come from other parts of the country or the world, and the contractor owner of the engine can not certify the engine into the PERP. In addition, although most drilling operations are transitory in nature, these projects often last more than 12 months. This fact alone limits the effective use of PERP engines. WSPA was a supporter of the use of PERP engines in the OCS since it provided greater flexibility for the operators and an air quality benefit. It was never intended as a complete replacement for existing exemptions. Therefore, WSPA strongly requests that this permit exemption not be eliminated.

In general, portable engines that lose their APCD exemption will be accepted by the ARB for registration as in-use engines. The APCD is also adding a new permit exemption for "specialty equipment" in response to concerns raised by the regulated community.

2) Rule 202 F.3: Deletion of the exemption for construction activities

The SBCAPCD proposed to revise Rule 202 and to eliminate the exemption for construction activities in 2001 and 2002. The SBCAPCD decided not to go forward with the proposed rulemaking at that time. However, on January 3, 2002, WSPA provided comments to the SBCAPCD on the proposed elimination of this exemption. Included below is an updated version of these comments, which demonstrate WSPA's opposition to the proposed deletion of the construction exemption.

The elimination of the construction exemption from the rule is a significant matter for WSPA as well as other entities in the county. Industry, especially the offshore oil and gas industry, relies on this exemption for large short-term construction projects. Similar to the proposed deletion of offshore drilling exemption, PERP engines are not always available for these projects. The SBCAPCD must remember that the whole body of their rules must be considered when making changes to any one part. The lack of any available offsets in the county and the lack of reasonable rules to allow temporary use of offsets preclude the ability of companies to conduct normal business projects. WSPA suggests that a revision of the offset rules (e.g. temporary leasing of offsets) be completed before the construction exemption is amended.

WSPA does not concur with the SBCAPCD that the construction exemption needs to be eliminated. The fact that other air quality districts in California do not have a similar exemption is not a technically based reason and is certainly not based on any air quality related concern. The SBCAPCD Board approved this exemption on December 8, 1987. The December 8, 1987 Board letter provided findings for the construction engine equipment exemption (Reference page 9). This report section, Engines Used in Construction Activities, states the following:

> The intent of the proposed Rule revision regarding construction is to protect air quality standards. Therefore, the proposed Rule 202, Section C.3. is formulated so that if construction emissions at a stationary source, which requires a District permit, exceed 25 tons of any pollutant (except for carbon monoxide) in a twelve month period, the stationary source operator would be responsible for obtaining emission offsets for the construction emissions.

Based on this evidence, the construction exemption is not antiquated. It was established to "protect our air quality" from emissions from construction projects. There is no evidence in the 1987 Rule 202-revision rulemaking record which indicates that the SBCAPCD intended to control general construction emissions other than those utilized for large projects.

This concept was validated in the 1997 SBCAPCD Rule 202 rulemaking staff report. On page 3-3 of that staff report, the SBCAPCD states:

> The APCD's overall objective in revising Rule 202 is to keep small inconsequential activities/sources/emissions out of the permitting program so it can focus on larger sources that represent the vast majority of pollution from stationary sources in the county.

The SBCAPCD followed this objective and did not revise the Rule 202 construction exemption during the 1997 rulemaking process. The 25-ton per year gatekeeper contained within this exemption was consistent with the 25 ton per year gatekeeper adopted in other Rule 202 exemptions.

Again, the air quality results are clear. The County of Santa Barbara has achieved attainment of the Federal ozone standards. The SBCAPCD approved the 2004 Clean Air Plan that projected maintenance of these ozone standards without the need of further control measures to be imposed on diesel construction engines. Therefore, there is no justification to remove this exemption at this time.

The adoption of the CARB Portable Diesel-Fueled Engine ATCM regulation has impacted the basis for exempting construction equipment. The best ways to implement the ATCM are through the CARB PERP and the local APCD's permitting processes. Thus, there is a need to remove the well drilling and construction engine exemptions to facilitate the implementation of the portable engine ATCM.

3) Proposed "Stacking" provision, Rule 202.D.15

The District is proposing a "stacking" provision in this rulemaking. Engines used in the "same process" will require that the individual brake horsepower (bhp) ratings of each engine be added together with the other engines used in the same process. If that rating is greater than 50 bhp, then all of the engines will be required to be permitted.

WSPA believes that this is a sensible requirement for operators attempting to circumvent the permitting of proposed projects. However, the definition of "used in the same process" needs to be carefully defined in this current rulemaking process. This rule revision should only apply to new engine applications and not to engines already under permit. In addition, this "stacking" concept should not apply to prohibitory rules or to New Source Performance Standards (NSPS).

For example, this concept is especially significant for operations at onshore oil and gas fields where there are banks of engines at wastewater pumping facilities within the facility leases. Currently, these individual engines are rated lass [SIC] than 50 bhp, and they are not required to be controlled under the provisions of Rule 333. These existing engines should not be considered as being in the "same process", and the aggregate horsepower of the pump engines should not be used to determine emission control requirements under Rule 333.

See response to the Greka Energy January 4, 2006, item 4. This response indicates that the determination is based on an engineering design basis and system demands. The example in that response uses boilers to describe different configurations. However, the same approach applies to internal combustion engines.

4) Rule 202.D.5 and Rule 202.D.7:

The proposed revisions to the temporary equipment and stationary source permit exemptions appear to require SBCAPCD written approval of the request submitted by the operator to use equipment covered by the exemption request. In many cases these exemption requests are made for emergency situations. Therefore, the revisions should include a specific deadline in which the SBCAPCD has to respond with an approval or denial of the request. Also, any fees for the review of the request should be billed to the operator after the request is made, and

should not have to accompany the submittal of the request to the SBCAPCD.

See the response to VAFB, January 10, 2006, items b(1) and b(2). Regarding the fee for the exemption request, the fee needs to be submitted with the request. However, for sources with a deposit on file, the District can, when requested in writing, bill the applicant for the fee by taking the fee from the deposit.

Consistency of the SBCAPCD proposed rulemaking with EPA's 1995 rulemaking comments.

In 1995 the EPA identified reasons for modifying Rule 202 in association with Rule 333 changes to make these rules acceptable for inclusion into the State Implementation Plan (SIP). [. . .]

WSPA believes that the proposed revisions to Rule 202 and Rule 333 are consistent with EPA's comments as follows:

- Revision of engine exemptions in Rule 202F.1.f. by lowering the exemption threshold for spark ignition engines from 100 bhp to 50 bhp.
- Revision of the stationary source exemption to include a gatekeeper of 25 tons per year for engines at the stationary source greater than 20 bhp but less than 50 bhp.

WSPA concurs that these proposed revisions to Rule 202 and Rule 333 are consistent with the guidance from EPA. However, at the December 8, 2005 rulemaking workshop, the SBCAPCD agreed to consider adding gatekeeper options for the engine operator that were not limited to the 25-ton threshold. This could include an aggregate horsepower-rating gatekeeper. WSPA encourages the SBCAPCD to consider these options in any redraft of this rule language. In addition, WSPA requests clarification on the proposed 25-ton gatekeeper. The emission threshold should be based on actual emissions.

The APCD has revised the Rule 202.F.1.f aggregate threshold to be 400 bhp.

As occurred with the previous Rule 202 revisions adopted by the SBCAPCD Board in March 2005, these proposed revisions would require operators to permit engines that were previously exempt. That initial engine permit application will not be subject to New Source Review (NSR). However, if the engine fails and can not be repaired, then a replacement requires an application that is subject to NSR requirements (Offsets, BACT, modeling, etc.).

Therefore, WSPA is requesting that the SBCAPCD clarify the exemption requirements for identical replacement and equivalent routine replacement within this rulemaking (Reference Rule 202 D.9). Including this request in the current rulemaking process is appropriate since the District has also proposed rule exemptions for wineries and powder coatings, which are not related to responding to EPA and CARB comments on Rule 202 and 333. WSPA appreciates the SBCAPCD's efforts in providing operators with a temporary replacement option in their permits, but that option only applies to repair of engines, not permanent replacement. As part of this rulemaking process, WSPA is requesting that the SBCAPCD respond to the "Historical Perspective" document (See Attachment1) which has been submitted to SBCAPD staff with requests for a response previously. WSPA believes that response to this request will both clarify Rule 202.D.9 requirements outlined in the SBCAPCD Rule 202 staff report dated April 22,1997, and will remove much confusion on this issue since the SBCAPCD issued its policy on identical and equivalent routine replacement.

See the response to Greka Energy, January 4, 2006, item 1.

Consistency of the SBCAPCD proposed rulemaking with CARB's Reasonably Available Control technology (RACT) and Best Available Retrofit Control Technology (BARCT) Guidelines, dated November 1, 2001.

The CARB RACT/BARCT Determination (November 1, 2001) states that: "This determination is a non-regulatory guidance document . . . Nothing in our guidance precludes districts from adopting different or more stringent rules or from varying from the determination to consider site specific situations."

In the following comments, statements made in the Background Paper are followed by the CARB RACT/BARCT Determination language. The page number where the reference can be found in Appendix A of the ARB RACT/BARCT Determination is included (e.g. A-8). Any WSPA comments are included below that reference.

1.) Lowering the single-engine exemption threshold from 100 to less than 50 bhp is consistent with . . . the CARB RACT/BARCT Determination.

RACT/BARCT: The provisions of this determination are applicable to all stationary spark-ignited internal combustion engines with a current rating of 50 bhp or greater (A-2).

WSPA Comment: Appears to be consistent.

2.) The CARB RACT/BARCT Determination indicates the provisions are applicable to all stationary spark-ignited internal combustion engines with a current rating of 50 bhp or greater, or a maximum fuel consumption of 0.52 million Btu per hour or greater based on a brake specific fuel consumption rating of 10,400 Btu per bhp-hour. Therefore, the concept of not applying the prohibitory rule provisions to an engine based upon a maximum heat input rate at a certain brake specific fuel consumption rating, which equates to an output of less than 50 bhp, is consistent with the ARB RACT/BARCT Determination.

RACT/BARCT: The provisions of this determination are applicable to all stationary spark-ignited internal combustion engines with a current rating of 50 bhp or greater, or a maximum fuel consumption of 0.52 million Btu per hour or greater based on a brake specific fuel consumption (BSFC) rating of 10,400 Btu per bhp-hour. For stationary spark-ignited internal combustion engines with different BSFC ratings, the maximum fuel consumption should be adjusted accordingly. (A-2)

WSPA Comment: Appears to be consistent.

3) Rule 333.D.4: Install and maintain a continuous oxides of nitrogen and oxygen monitoring system for engines with a bhp of 1,000 or greater, subject to a Section E emission limit, and permitted to operate in excess of 2,000 hours per year. This requirement stems from the ARB RACT/BARCT Determination.

RACT/BARCT: For each stationary internal combustion engine with a rated brake horsepower of 1,000 or greater and which is permitted to operate more than 2,000 hours per calendar year, the owner or operator shall install, operate, and maintain in calibration a continuous NO_x and O2 monitoring system (A-10). The continuous monitoring system may be a continuous emissions monitoring system (CEMS), parametric emissions monitoring system (PEMS), or an alternative approved by the Air Pollution Control Officer. (A-11)

WSPA Comment: The proposed revisions to Rule 333 are consistent with the CARB RACT/BARCT guidelines concerning the requirement for CEMS for engines exceeding 1,000 bhp. However, the proposed revisions to Rule 333 do not refer to other options included in these guidelines, but rather suggests only that CEMS is required. WSPA requests that the SBCAPCD add this language to the proposed rule. In addition, WSPA requests that justification criteria be added to the rulemaking staff report for the requirement of installing a CEMS. For example, if an engine has demonstrated compliance with emission limits through source testing, quarterly, and now proposed monthly, NO_x box testing, and periodic SBCAPCD inspections, WSPA believes that installation of a CEMS for that engine is unnecessary. WSPA believes that the expense of the installation and maintenance of a CEMS, additional development of CEMS prototcols [SIC] and plans, quarterly or annual Relative Accuracy Testing Audits (RATA) and other requirements required by 40 CFR Part 60, and fees associated with the CEMS is an unnecessary burden to be placed on industry. Additionally, if the engines have historically been shown to be complying with emission requirements, then the inclusion of CEMS only adds cost and complexity without adding any benefit to air quality.

The APCD has added text to the proposed Rule 333.D.4 provision that makes it applicable to new engines only. Since we are now proposing that the 333.D.4 provisions apply to "new" engines only, the APCD believes the requirement to use a CEMS is the most effective compliance tool.

4) Rule 333 E, Requirements-Emission Limits:

a) The SBCAPCD used the RACT emission limits from the ARB RACT/BARCT Determination for the proposed emission limits for spark ignition engines.

RACT/BARCT: Refer to Table A-1 in the ARB RACT/BARCT Determination. (A-6) Note: As stated in the ARB RACT/BARCT Determination, "these RACT and BARCT limits should be used as guidance. Districts have the primary responsibility for regulating stationary sources and have the flexibility to adopt IC engine rules that differ from this guidance, as long as these differences do not conflict with other applicable statutes, codes and regulations."

WSPA Comment: Limits are consistent, however refer to note above.

b) Rule 333.E.4, Emission Limits for Compression Ignition Engines: The SBCAPCD has included new ROC and CO emission limits.

RACT/BARCT: WSPA can not find any reference in the RACT/BARCT Determination that specifies these new emission limits. Therefore, WSPA requests that the SBCAPCD provide justification for this new requirement from the RACT/BARCT guidelines, or other mandate.

The ARB RACT/BARCT Determination referenced in the background report is for spark ignition engines only. ARB has not written a RACT/BARCT determination for compression ignition engines. Lacking such an ARB determination, we are using the compression ignition engine NOx and ROC limits from other air districts (e.g., the NOx and ROC limits from the Sacramento Metropolitan AQMD, Rule 412, and CO limit from the Ventura County APCD Rule 74.9).

5) Rule 333.F.3: Consistent with the CARB RACT/BARCT Determination, staff recommends that the engine inspection frequency be increased from quarterly to monthly.

RACT/BARCT: The inspection and monitoring plan shall include monthly emissions checks by a procedure specified by the ACPD officer. (A-10)

WSPA Comment: This proposed revision appears to be consistent with the CARB RACT/BARCT guidelines. However, the guidance document (Chapter IV-K) identifies that quarterly testing may also be sufficient. WSPA believes that the SBCAPCD needs to provide documentation of the frequency of observed failures of the existing quarterly monitoring procedure prior to implementing any increased monitoring. Monthly testing is a four-fold increase in monitoring with substantial costs. SBCAPCD has not provided any economical analysis for RACT/BARCT implementation. In addition, quarterly monitoring meets the guidance document suggestions for RACT sources (less than 5 tons/day and 250 tons/year). The SBCAPCD has not shown that any of the sources affected by a new requirement for monthly monitoring meet the definition for BARCT sources. Therefore, WSPA requests that the monitoring frequency not be revised from quarterly to monthly inspections.

See the response to Greka Energy, January 4, 2006, item 7.

6) Exempting spark ignition emergency standby engines from the prohibitory rule is consistent with the ARB RACT/BARCT Determination.

RACT/BARCT: The provisions of this determination, except for Section V11.B (2) (nonresettable fuel/time meter) shall not apply to . . . (2) Emergency standby engines that, excluding periods of operation during unscheduled power outages, do not exceed 100 hours of operation annually as determined by a nonresettable elapsed operating time meter. (A-8)

WSPA Comment: Appears to be consistent.

7) Rule 333.D: The SBCAPCD staff proposes that all engines subject to Rule 333 be equipped with fuel meters. This requirement is consistent with the ARB RACT/BARCT Determination.

RACT/BARCT: Any engine subject to this determination including those subject to Section IV.B. shall be required to install a nonresettable fuel meter and a nonresettable elapsed operating time meter. (A-8)

WSPA Comment: Appears to be consistent.

8) Rule 333 I, Source Testing.

a) The ARB RACT/BARCT Determination specifies a source testing frequency of at least once every 24 months.

RACT/BARCT: The owner or operator shall arrange for and assure that an emissions source test is performed on each stationary internal combustion engine at least once every 24 months. (A-11)

WSPA Comment: Appears to be consistent. However, please note comment No. 5 above.

b) Rule 333.I.7.c: The proposed revisions to Rule 333 included in this section require that: "At a minimum, three 30 minute test runs shall be performed. Any 15-minute clock average exceeding a Section E limit during any test run constitues [SIC] an emission violation.

RACT/BARCT: WSPA can not find any reference in the RACT/BARCT Determination that specifies this requirement. Therefore, WSPA requests that the SBCAPCD provide justification for this requirement from the RACT/BARCT guidelines or the approved test methods included in the RACT/BARCT guidelines. Additionally, the SBCAPCD needs to provide historical data indicating the frequency of failed source tests; without such data it is difficult to understand the basis for more stringent test requirements. WSPA believes that an engine complying with the permitted emission limit over a 30-minute period is sufficient to determine compliance during a source test. Therefore, WSPA requests that the SBCAPCD delete the second sentence of Rule 333.I.7.c.

See response to the VAFB January 10, 2006 letter, item c(4).

Vandenberg Air Force Base,
February 28, 2006

[. . .] requests the APCD consider the following inclusion in Rule 102, Definition.

"Responsible Official" refers to an individual employed by the company or public agency with the authority to certify that equipment under his/her jurisdiction complies with applicable requirements. A company or public agency may have more than one Responsible Official. A contracted designee cannot certify compliance in lieu of the Responsible Official.

VAFB believes that this verbiage provides needed clarification for non-Part 70 sources.

To address the concern, application form (APCD Form - 01) was revised to take out the term "Responsible Official."

Plains Exploration and Production Company
June 8, 2006

We have identified a new exemption that we request be considered for Rule 202.

We ocasionally [SIC], but infrequently, need to use divers to perform maintenance on underwater sections of the offshore platforms and pipelines. These activities require divers to be in the water for extended periods of time. To prevent hypothermia, the divers use special suits that are heated with water.

In the past, we go through the temporary exemption process to use special portable diesel fired water heaters for this purpose. The emissions are small, almost trivial.

We are requesting that the District add a new exemption 202.L.16:

16. Notwithstanding G.2 of this Rule, portable water heaters used exclusively for underwater diving activities with a maximum heat input rating less than 1 million Btu/hr fired exclusively on diesel fuel.

This will eliminate tremendous project delays and duplicative work for individual exemptions. Please let me know if you need more information on this issue.

We concur with the concept for an exemption on this type of equipment.

Western States Petroleum Association,
August 22, 2006

The Western States Petroleum Association (WSPA) is a non-profit trade association representing a full spectrum of companies which explore for, produce, refine, transport, and market petroleum products in the six western states. WSPA staff and its Coastal Air Strategy Group (CASG) members appreciated meeting with the District staff in March 2006 concerning the proposed revisions to Rules 102, 202, and 333. Based the discussions at that meeting, our follow-up telephone conferences with District staff, and WSPA-member internal discussions, we have updated our comments on this proposed rulemaking. These comments are attached. We are also requesting that staff respond to our comments on this rulemaking outlined in our letter to the District on January 18, 2006.

1) Rule 202.F.6: Deletion of the exemption for offshore drilling activities

Terry Dressler explained to our WSPA CASG members that this exemption required elimination so that compliance with the diesel engine ATCM could be achieved. If this exemption is eliminated, WSPA has the following questions and comments concerning the impacts to offshore facilities operated by our members:

- Currently, Rule 202 allows a gatekeeper of 25 tons per year for drilling engine emissions. If this exemption is removed, it is WSPA's understanding that drilling engines would be permitted with an emission limit of 25 tons per year, and that this addition to the stationary source emissions will not be subject to New Source Review (NSR). WSPA requests that the District provide details on how such a transition would occur. For example, would the application for permit have to identify each engine to be used at the stationary source?

A "gatekeeper" is not a vested blanket emissions limitation that is broadly maintained once an exemption is removed. The removal of the drilling exemption applies to specific drilling equipment. For those platforms with existing permanent drilling equipment in place, the removal of the exemption will require the submittal of a PTO application within 90 days of EPA's promulgation of the Rule 202 revision into the OCS Air Regulation. The PTO permits would establish emission limits for the equipment based on its potential to emit.

Equipment that is transient would either need to be registered in the State PERP program or be permitted. As noted in our other responses to comments, existing portable drilling engines may be registered as in-use engines with the ARB. This registration process will have to occur within the same 90 day period as noted above. Registered equipment on the OCS is required to follow the requirements of the PERP program as if the equipment were located in State Territorial Waters.

WSPA's concern is still valid in the larger context. The exemption applied to all drilling equipment and was based on actual emissions. The removal of the exemption may result in the use of both permitted and unpermitted (PERP'd) drilling equipment whose PTE may exceed the prior exemption threshold. A solution to WSPA's concern is to establish a separate 25 tpy limitation based on actual emissions for all existing drilling equipment (previously permit exempt and in-use PERP).

Further, there are instances where the source has complied with the Rule 202.F.6 exemption through enforceable limitations on the use of emission controls. In this case, these limitations are used for establishing the PTE.

- What will the procedure be for drilling engines that cannot be permitted by the SBCAPCD or registered in the CARB program? Engines from outside California and the United States are periodically used on a transient basis for well workover activities. It cannot be guaranteed that only a select set of engines would be used on this basis since the engines potentially come from multiple work sites around the world. Would an exemption be allowed for these out-of-state engines?

In WSPA's comments, they state:

> *"WSPA has contacted several of the drilling support contractors that provide engines for offshore drilling operations. They have concurred that if current engines can be grandfathered into the PERP program without control requirements until 2010, or grandfathered into a "various locations permit" (exempt from NSR), then that would cover most their inventory of support engines."*

This statement provides support that engines exist within California to meet the drilling needs of the OCS operators. However, to provide a mechanism to exempt the use of "specialty equipment," the APCD added a new permit exemption (Rule 202.F.5).

- It is our understanding from our participation in the recent PERP workshops, that if an engine permit exemption is removed, then those unpermitted engines would be allowed to be grandfathered into the PERP program. Additional emission control requirements will also not be required until 2010. WSPA requests confirmation of this PERP provision.

That is correct and has been confirmed with the ARB.

- District staff have informed WSPA that drilling engine vendors could apply for permits with the SBCAPCD with a "various location" format. Thus, permitted vendor engines could be brought on a platform to perform drilling operations. Please confirm that this provision, similar to the permitting policies for the VCAPCD OCS platforms, would be available for offshore drilling operations in Santa Barbara County.

SBCAPCD does issue various locations permits. However, such permits have provisions requiring prior notification and approval. The APCD evaluates each usage to determine whether the equipment, when brought onsite, would trigger NSR requirements for that stationary source. If this is the

case, the use of the various locations permit would not be granted approval for use on that stationary source. This review is done on a case-by-case basis. Typical equipment permitted by the APCD for various locations use includes contaminated soil cleanup units, degassing units and mobile re-fueling units.

- In certain instances, a drill rig engine or drilling support engine may fail during a drilling operation. This could constitute an emergency situation in the midst of a drilling operation, with the need for a replacement immediately. If an available replacement engine is not permitted or does not have a PERP certification, what provisions could be made to use this engine to continue the drilling operation? WSPA would request an exemption from permit for such emergency drilling operations since it is WSPA's understanding that a variance could not be obtained for not having a valid permit for a replacement-drilling engine.

For permitted engines, the provisions of the temporary engine replacement condition would apply. Non-permitted engines will be eligible for the PERP emergency use provisions. See Title 13, California Code of Regulation, Section 2455(c) for details on these provisions. The new "specialty equipment" provision in Rule 202.F.5 may be available depending on the circumstances.

2) Rule 202 F.3: Deletion of the exemption for construction activities

The elimination of the construction exemption from the rule is a significant matter for WSPA as well as other entities in the county. Industry, especially the offshore oil and gas industry, relies on this exemption for large short-term construction projects. Examples of large short-term construction projects are as follows:

- Installation of electric cables from onshore to offshore platforms utilizing cable lay vessels.
- Use of semi-submersible drill rigs or floating vessels for exploratory drilling.
- Derrick barges with cranes for heavy lifting of platform extensions or lifting other equipment onto a platform.
- Pipeline construction/repair projects (e.g. barge-mounted pipeline laying equipment).
- Installation of a new platform (Jackets and topsides).

PERP engines are not always available for these projects. Since many of the examples listed above include marine vessels, WSPA believes that this current rulemaking would be an excellent opportunity for the SBCAPCD to clarify, and include in rule language or the staff report, its permitting requirements for propulsion and auxiliary engines on support marine vessels. Please refer to comment No. 3 below concerning our requests for vessel engine permit exemptions.

To address the concerns that arise from the elimination of the construction exemption, the APCD is proposing modifications to or additions of:

- *Rule 201.D (Requirement - ATC),*
- *Rule 202.D.16 (Offsets Required When Projected Actuals Exceed 25 TPY Per a 12 Month Period)*
- *Rule 202.F.5 (Specialty Equipment Exemption),*
- *Rule 202.F.7 (Exemptions for Pile Drivers, Cable and Pipe-Laying Vessels/Barges), and*
- *Rule 202.F.8 (Exemptions from NSR for Marine Vessel Engines Associated with Construction, Maintenance, Repair and/or Demolition)*

WSPA also requests clarification of the impact of the deletion of the construction exemption to all construction activities within the county. If this construction exemption is removed, then it would be WSPA's understanding that any construction activity within the county, utilizing stationary internal combustion engines, would require a permit or would require that the engines used in that construction project have a PERP. This would include the use of engines in the construction of shopping centers, housing developments, and major building projects.

That is correct, non-road engines rated 50 bhp or greater used in any construction project in the County would either require a PERP or a permit. Motor vehicles are not subject to APCD permit.

The SBCAPCD must remember that the whole body of their rules must be considered when making changes to any one part. The lack of any available offsets in the county and the lack of reasonable rules to allow temporary use of offsets preclude the ability of companies to conduct normal business projects. The evolution of diesel engine emission controls, and the use of spot charter and permitted marine vessels has allowed many of these projects to proceed without exceeding the 10-ton emission offset threshold. However, in certain instances the project emissions may exceed the 10-ton emission offset threshold. Therefore, WSPA suggests that a revision

of the offset rules (e.g. temporary leasing of offsets) be completed before the construction exemption is amended. WSPA also requests that the District provide guidance on how such construction projects may occur if this exemption is removed. For example, would the current "Repair and Maintenance" exemption in Rule 202.D.8 be able to be utilized for some of these construction/repair projects?

The APCD is believes the emission offset requirements will be satisfactorily addressed with the proposed amended Rule 202, Sections F.5, F.7, and F.8.

3) Specialized Engine Exemptions

SBCAPCD staff has requested WSPA to propose a list of specialized drilling or other platform operation engines that would be covered by a Rule 202 exemption. The reasons for such exemption requests are as follows:

a) It would be very difficult or impossible to permit or register these engines into the PERP.
b) Engine emissions would be very minimal.
c) Engine use requirements from regulatory agencies.

Requests for specific engine exemptions would include the following:

- PXP has submitted the following exemption request to the SBCAPCD: Portable water heaters used exclusively for underwater diving activities with a maximum heat input rating less than 1 million Btu/hr, fired exclusively on diesel fuel.

- Marine support vessels and engines installed on support vessels that are used throughout the country and the world and are brought into District waters for short-term construction or repair and maintenance projects. These engines would not be readily available in Santa Barbara County or California, and must be imported. Of particular concern are propulsion engines on diving support vessels, engines installed on diving support vessels (air compressors, etc), cable lay vessel engines, barge vessel engines, and engines mounted on barges.

- Marine support vessel trip emissions specifically requested by regulatory agencies to perform observations and monitoring of construction, deconstruction, and repair projects. Examples of agency requests have included Santa Barbara County Planning Division staff requested trips and marine mammal agency oversight/monitoring. The applicant should be exempt from such vessel trip emissions if they are requested by the agency and are not included in permitted vessel emissions required for the project operations.

- WSPA has contacted several of the drilling support contractors that provide engines for offshore drilling operations. They have concurred that if current engines can be grandfathered into the PERP program without control requirements until 2010, or grandfathered into a "various locations permit" (exempt from NSR), then that would cover most their inventory of support engines. They could not provide WSPA with a list of any drilling support engines that could not fit into these categories at this time. However, as this rulemaking progresses, WSPA needs the ability to provide the SBCAPCD with a list of engine exemption requests in the future which can not be accommodated by these registration/permitting procedures.

The request for an exemption for portable water heaters used for underwater diving activities has been addressed by the addition of a new exemption (Rule 202.L.16). To address the use of emergency "specialty equipment," the APCD has added a new provision (Rule 202.F.5).

Regarding marine support vessel trip emissions, the question that needs to be addressed is, "are the marine vessels associated with the stationary source?" If the answer is "yes," then the emissions from these support vessels must be included in the PTE for the stationary source as required by Rule 202.F.1.b and the OCS Air Regulation. OCS Platform permits already include emission line items for such required vessel use (i.e., Clean Seas vessels).

The APCD believes the concerns on marine vessel engine emissions relative to short-term construction, maintenance, repair and/or demolition activities associated with a stationary source have been addressed by the new/modified provisions in the proposed amended Rule 202.

4) Identical and Equivalent Replacement

At this time, WSPA is withdrawing its request for the District to consider clarification of the exemption requirements for identical replacement and

equivalent routine replacement within this current Rule 202 rulemaking (Reference Rule 202 D.9). Should it be necessary, WSPA will discuss the District's current policies concerning identical replacement and equivalent routine replacement in the future.

Comment noted.

Consistency of the SBCAPCD proposed rulemaking with CARB's Reasonably Available Control technology (RACT) and Best Available Retrofit Control Technology (BARCT) Guidelines, dated November 1, 2001.

5.) Rule 333 I, Source Testing.

Rule 333.I.7.c: The proposed revisions to Rule 333 included in this section require that: "At a minimum, three 30 minute test runs shall be performed. Any 15-minute clock average exceeding a Section E limit during any test run constitues [SIC] an emission violation".

In our discussions with District staff, WSPA was informed that the above source testing requirement was consistent with VCAPCD, South Coast AQMD, and SJVAPCD source testing requirements, as well as the RACT guidelines. WSPA has reviewed the source testing provisions in these District rules, and has interviewed their staff and several CARB-certified source testing contracting firms. The table below summarizes these investigations.

Jurisdiction	Rule	Required Averaging Period (min)	Minimum Test Run Required (min)
SBCAPCD	Proposed Rule 333.1.7.c	15	30
SJVAPCD	Rule 4301.6.3.2	30	30
VCAPCD	Rule 74.9.B.4	15	15
SCAQMD	Rule 1110.2 (d)(1)(B) &(C)	15	15

Therefore, WSPA requests that this source testing revision be eliminated. The proposed language would only be acceptable to WSPA if the District limits source test runs and the averaging period to 15 minutes.

See response to the VAFB January 10, 2006 letter, item c(4).

WSPA is requesting that source testing not be required for EPA/CARB-certified "tiered" engines for the hours for which the engine is certified. For example, if the new engine is certified by CARB/EPA for 8,000 hours, then source testing should not be required until that 8,000-hour certification period expires.

Although EPA/CARB certification standards apply to "tiered" engines, we have found that some engine manufacturers do not always guarantee these values. Further, unless required as BACT the APCD accepts Rule 333 limits as the enforceable permit limit for these tiered engines. However, to provide relief from some of the Rule 333 requirements, the APCD is proposing special treatment for tiered engines that do not exceed 560 ppmv NOx at 15% oxygen (as demonstrated by routine monitoring with a portable analyze). These provisions are included as Rule 333.B.3 and Rule 333.I.8.

Consideration of Previously Submitted WSPA Comments

Not withstanding [SIC] the clarifications listed above, WSPA requests that the District consider our comments, contained in our January 18, 2006 letter, when you develop further revisions to Rule 102, 202, and 333.

These have been addressed.

Western States Petroleum Association, May 18, 2007

Per an e-mail from Kevin Wright to Tom Murphy dated May 18, 2007:

[. . .]

On behalf of Bob Poole and the WSPA CASG

members, please find attached our list of issues associated with the proposed elimination of the construction exemption.

[. . .]

Construction Exemption

WSPA has not reached consensus with the SBCAPCD on the removal of the construction exemption as follows:

1. ***Potential Emission Offset Requirements:*** The SBCAPCD staff position is that engines used for construction activities require permits or be registered under the PERP program. Therefore, all the engines used in a construction project which require permits are subject to NSR and could potentially require emission offsets. This position is problematic in that construction projects are shot-term [SIC], and the SBCAPCD emission offset requirements are for long-term stationary source projects, and must be in place for the life of the project. Currently, there is no SBCAPCD program or rule for leasing offsets.

2. ***Offshore Construction Projects:*** The SBCAPCD staff position is that construction project engines associated with an offshore stationary source, including marine vessel propulsion engine emissions, must be included in the source's potential to emit and are subject to NSR provisions per Rule 202.F.1.b and the OCS Air Regulations.

3. ***Cable Lay/Derrick Barge*** Activities***:*** The SBCAPCD staff position is that construction activities associated with cable lay or derrick barges, not erected or attached to the sea floor, and with an activity PTE less than 25 tons/year, do not require a permit under the provisions of Rule 201.D.1 [SIC]. However, in staff's view, the proposed Rule 202.D.16 would apply to construction projects associated with a stationary source. In addition, marine propulsion engine emissions must be included in the source's potential to emit and are subject to NSR provisions per Rule 202.F.1.b, and the OCS regulations.

Analysis:

WSPA has expressed the following positions on these construction exemption issues:

- The SBCAPCD must provide citations for marine propulsion engines being included in the stationary source's [Offshore platform(s)] PTE beyond those required for crew and supply boats servicing the platforms.

Reference citations include Rule 102, specifically, the definition of "stationary source", which includes all pollutant emitting activities located in the OCS. Rule 201.A. applies to the operation or use of any equipment which may cause the issuance of air contaminants. Rule 202.F.1.b. provides permit exemption for marine vessel propulsion engines other than those associated with a stationary source. For stationary sources ALL marine vessel propulsion engines are included. Finally, the OCS Air Regulations (40 CFR Part 55) requires the inclusion of ALL marine propulsion engines.

- WSPA believes that SBCAPCD staff's interpretation stated above is different than the Rule 202.D.16 language. The proposed Rule 202.D.16 states that emissions from equipment used to construct a stationary source must be included in the 25-ton gatekeeper calculation. This proposed rule includes nothing about a construction project being "associated with" a stationary source.

This is not the correct interpretation. The term "associated with" doesn't apply in this case. The rule says the "combined emissions from all construction equipment <u>used to construct</u> (emphasis added) a stationary source which requires an Authority to Construct" must provide offsets if the projected actual emissions exceed 25 tpy. The District is currently exploring the option for inclusion of a new permit exemption for short-term construction projects.

- WSPA has confirmed that no other air district in the state requires permits for construction activities (An exception would be stationary concrete batch plants for the road construction projects). These air districts handle construction projects under the NEPA and CEQA process. WSPA believes that the SBCAPCD rules should be consistent with those of other air districts and handle construction projects through the NEPA/CEQA process and not the permit process.

The APCD proposes to remove the construction exemption. This exemption applied to "equipment" used to construct a stationary source. We do not intend to require permits for "construction activities" and/or "construction projects". Rather, sources will be required to use construction equipment which is either permitted with the District or holds a PERP registration through the state.

- Permitting requirements for deconstruction and abandonment activities must be clarified during this rulemaking.

Historically, equipment used for deconstruction or abandonment activities was required to be either permitted with the District or hold a PERP registration with the state. There is no change proposed in this regard. The District is working on a revision to Rule 202 to add an exemption (F.8) for marine vessels which would allow for demolition and abandonment short-term projects to be performed without permit, provided the exemption criteria are satisfied.

- An offset leasing rule needs to be added to the Rule 800 provisions.

The District does not intend to open Regulation VIII to incorporate an offset leasing provision. However, the District is proposing to make changes to Rule 202 (F.7 and F.8) which should mitigate the need for offsets for such short-term projects.

Semi-submersible Drill Rigs, Drill Ships, and Jack-up Rigs

The SBCAPCD staff position is that semi-submersible drill rigs, drill ships, and jack-up rigs are all considered installed and/or erected and attached to the sea floor, and a permit is required for these rigs. All equipment with the potential to emit air contaminants on board the rig would be permitted, unless specifically exempted in Rule 202. Dedicated propulsion engines would not be permitted, but their emissions would be permitted, and would be included in the PTE. Dual use propulsion engines would be permitted for the time the engine is used for operational activities. Any associated support marine vessel emissions would be included in the source's PTE.

The APCD concurs that the discussion above accurately represents our position.

Analysis:

The oil and gas industry has always assumed that it could utilize the existing construction exemption for these drilling exploration activities. The SBCAPCD has taken the position that the proposed Rule 202.D.16 would not apply to these activities, and they would be stationary sources and subject to the SBCAPCD's permitting and NSR requirements. The SBCAPCD must provide citations for including these activities in their permitting program.

The following addresses the concerns on semi-submersible drill rigs, drill ships, and jack-up rigs.

- *Semi-submersible drill rigs (drill rigs) are considered "erected" and subject to the requirement to obtain a permit per District Rule 201.A.*

- *Drill rigs are also governed under the authority of Chapter 26 of the California Health and Safety Code, specifically sections 39002 and 42300.*

- *Federal regulations are consistent with the above interpretation that a drill rig is built or erected prior to operation and therefore would require a permit. Pursuant to Section 328 of the Clean Air Act Amendments of 1990, the Environmental Protection Agency adopted 40 CFR Part 55 in 1992 to regulate sources of air pollution on the Outer Continental Shelf. This would include, for example, drill ships on the OCS. (57 F.R. 40792, September 4, 1992).*

- *William M. Dillon, Deputy Counsel, provided the District with a written opinion regarding "Rule 201 and semisubmersible drill rigs" dated March 23, 2007. This opinion finds that semisubmersible drill rigs would require a permit from the District if the exemption for drill in Rule 202 F (6) was repealed.*

- *The "oil and gas industry" is incorrect in their assumption regarding the use of the "construction exemption" for exploratory drilling activities. When the District adopted the Regulation II and Regulation VIII requirements in 1997 we made it clear in the FAQ's that drilling a well was not considered construction. In fact, Rule 202.F.6 provides an exemption for "drilling equipment used in state waters or in the Outer Continental Shelf provided the emissions from such equipment is less than 25 tons per stationary source of any*

affected pollutant during any consecutive 12 month period."

- *Rule 202.D.16 does not apply to exploratory drilling activities because it's not construction. The District is proposing to eliminate the drill rig exemption currently included in Rule 202.F.6. District rules require that within 90-days of the exemption removal that such rigs are either permitted with the District or hold a PERP registration through the state. In addition, the District will be proposing an addition to Rule 202 for the use of "specialty equipment" which is ineligible for registration in the state PERP.*

- *Activities described in WSPA's "analysis" are for new projects. The proposed rule changes will require that new projects comply with District rules and regulations. The impact on existing sources with drill rigs is that they will need to get a PTO within 90-days following the rule change due to a loss of exemption. Alternatively, existing drill rigs will also be able to obtain a PERP registration as an "in use" engine. Notwithstanding the above explanation, new exploratory drilling operations will require a permit.*

California Air Resources Board
February 13, 2008

Rule 101 Definitions

We have on [SIC] comment on this rule

Rule 201 Permits Required

We have no comment on this rule

Rule 202 Exemptions to Rule 201

We have no comment on this rule.

Rule 333 Control of Emissions from Reciprocating Internal Combustion Engines

1. Section B.2: This section exempts engines that operate less than 200 hours per calendar year from Rule 333 NOx, CO, and ROC emission limits. Many compression ignition engines subject to District Rule 333 are also subject to Stationary Diesel Engine Airborne Toxic Control Measure (ATCM) emission limits for these air pollutants (Section 93115.7(b)). However, in contrast to Rule 333, Section B.2., the ATCM provides, upon owner/operator request, a more limited general exemption for prime engines that operate no more than 20 (as opposed to 200) hours per year (Section 93115.3(j)). We recommend that section B.2.'s Note 6 clarify that only prime engines operating 20 hours or less per year are eligible for exemption from ATCM NOx, CO, HC, and NMHC+NOx emission limits.

We added a Note 6A, which states in general terms that a low-use prime engine may be exempt from Rule 333, but not the ATCM.

2. Section E.4: The NOx limit for compression ignition engines (i.e., 700 ppmv or ~ 9 g/bhp-hr) is not as stringent as the Stationary Diesel Engine ATCM's requirement that in-use engines not exceed the more stringent of: 1) Off-Road CI Engine Certification Standard for an engine of the same horsepower and model year, or 2) Tier 1 standards (i.e., 6.9 g/bhp-hr) (Sections 93115.7(b) and 93115.8(b)). Since many compression ignition engines subject to District Rule 333 are also subject to the ATCM, we recommend that an additional note be added to inform stakeholders that ATCM NOx emission limits supercede the less stringent NOx emission limit of Rule 333.

We modified Note 43 in the annotated version of proposed amended Rule 333 to mention that the ATCM requirements are more restrictive and supersede the less-stringent limits in Rule 333.

Vandenberg Air Force Base,
March 10, 2008

1. Rule 102 comments:

a. Fuel: VAFB understands that the 20% biodiesel blend (B-20) is considered by the California Air Resources Board (CARB) as diesel fuel that does not require APCD pre-approval. Other biodiesel blends greater then B-20 require APCD approval prior to use.

That is correct.

b. 202.D.16: The 25 ton per year construction cap. The existing exemption states:

> *Notwithstanding any exemption in these rules and regulations, if the combined emissions from all construction equipment used to construct a stationary source* ***which requires an Authority to Construct*** *(emphasis added) have a projected*

actual in excess of 25 tons of any pollutant, except carbon monoxide, in a 12 month period, the owner of the stationary source shall provide offsets as required under the provisions of Rule 804 and shall demonstrate that no ambient air quality standard would be violated.

(1) VAFB understands that the specific individual construction project within a stationary source is applied to the 25 ton total. The following examples are provided to clarify the VAFB understanding:

(a) For example, VAFB performs critical repairs on the 13th Street Bridge caused by the Santa Ynez River. The repair/upgrade is not to support a new mission at VAFB. The construction project is within the VAFB stationary source and does not require an ATC. The project is not subject to the 25 ton per year construction cap.

(b) For example, VAFB performs a structural upgrade on the 13th Street Bridge to support an existing mission at VAFB. The construction project is within the VAFB stationary source and supports existing equipment operations that do not require an ATC. The project is not subject to the construction cap and VAFB is not required to maintain records demonstrating the projected actual emissions do not exceed 25 ton per year cap.

(c) For example, VAFB performs a structural upgrade on the 13th Street Bridge to support a new mission at VAFB. The construction project is within the VAFB stationary source and supports equipment operation modifications that require an ATC. The project is subject to the construction cap and VAFB must maintain records demonstrating the projected actual emissions do not exceed 25 ton per year construction cap.

(d) For example, VAFB constructs a water line project on the north base and constructs a building on the south base. Both construction projects are within the VAFB stationary source and neither requires an ATC. Both projects are not subject to the 25 ton per year construction cap.

(e) For example, VAFB constructs a water line project on the north base and constructs a building on the south base. Both construction projects are within the VAFB stationary source. The water line project does not require an ATC. Construction of the building requires an ATC to install an emergency back-up generator. The water line project is not subject to the 25 ton per year cap. The building construction is subject to the construction cap and VAFB must maintain records demonstrating the projected actual emissions do not exceed 25 tons per year.

(f) For example, VAFB constructs a water line project on the north base and constructs a building on the south base. Both construction projects are within the VAFB stationary source. The water line project requires an ATC because water is tied into a proposed boiler that requires an ATC. Construction of the building requires an ATC to install an emergency back-up generator. The water line project is subject to this 25 ton construction cap. The building construction is subject to the construction cap and VAFB must maintain records demonstrating the projected actual emissions do not exceed 25 tons per year. However, each project is treated separately and has separate 25 ton construction caps.

The APCD concurs with the examples given in (a) through (f) above.

c. 202. F.1.b: The United States government owned marine vessels. The existing exemption states: *Engines used to propel marine vessels, except vessels associated with a stationary source which shall be regulated as specified under the provisions of Regulation VIII.*

(1) VAFB understands that Department of Defense marine vessels used as tactical support and training of troops are not associated with the primary function of the VAFB stationary source and are already exempted pursuant to APCD rules.

The APCD concurs that this understanding is correct.

d. 202.F.1.e: Compression ignition engines with a rated brake horsepower of less than 50:

(1) The APCD noted that this exemption was changed in order to be consistent with the California ATCM for Diesel PM from Portable Engines which applies to engines having a rated brake horsepower of 50 and greater (= 50) but the California ATCM for Diesel PM from Stationary Engines applies to engine greater than 50 bhp (> 50). The proposed modification will result in requiring permits for stationary engines rated at 50 bhp, which is inconsistent with the ATCM for stationary engines.

For the purposes of the permitting program, we chose to standardize the permitting threshold at 50 bhp, which is consistent with the state's portable engine ATCM applicability threshold.

e. 202.F.1.f: Spark ignition piston-type internal combustion engines: VAFB understands that the APCD reduced the engine exemption from 100 bhp to 50 bhp in order to address EPA's concern. However, VAFB does not understand why the APCD reduced total threshold from 500 bhp to 250 bhp. VAFB is concerned because the cumulative total is close to the 250 bhp threshold. Once exceed, VAFB will be required to obtain permits and every time a <50 bhp engine arrives at VAFB, a new source review will be required. Because VAFB exceeds NSR thresholds, VAFB will be required to secure offsets for these engines and potentially apply BACT, perform health risk assessments and air quality impact analysis. VAFB requests the APCD reconsider the lower threshold and return the threshold to 500 bhp.

The APCD has revised the Rule 202.F.1.f aggregate threshold to be 400 brake horsepower based on the actual mix of the engine horsepower ratings in our inventory.

f. Rule 316 exemption for captured fleets with ORVR. VAFB requested the APCD consider a Rule 202 exemption from the requirements to install enhanced vapor recovery Phase II on gas dispensing facilities fueling captured fleets with on board vapor recovery (ORVR) systems. Please refer to Attachment 2. Attachment 2 provides CARB guidance to local California Districts encouraging them to revise vapor recovery rules requiring fleets.

This request requires a revision to Rule 316, Storage and Transfer of Gasoline. It cannot be accomplished through a revision of Rule 202. We have received the request to revise the Rule 316 consistent with the ARB guidance and we are looking into it.

Appendix K
Santa Barbara County
Comparison of the Proposed Amended Rules to the Rules in the Adjoining Air Districts

The Air Pollution Control Districts that border the Santa Barbara County APCD (SBC) include the San Joaquin Valley Unified APCD (SJV), the San Luis Obispo County APCD (SLO), and the Ventura County APCD (VC). For performing the comparisons of the proposed revised rules, rulemaking staff considered the following categories:

1. Definitions,
2. Authority to Construct Requirement,
3. Exemptions and General Provisions for Permit Exemptions, and
4. Internal combustion engine prohibitory rule requirements.

The following provides summaries of the comparison findings for each of these categories.

DEFINITIONS (SBC RULE 102)

In general, the SJV, SLO, and VC engine rules include definitions that are similar to the ones we are proposing for Rule 102. However, the Santa Barbara County Air Pollution Control District prefers to locate the definitions in the general definition rule (Rule 102) instead of Rule 333. Thus, our approach to the location of the definitions differs from the adjoining air districts. Their general definition rules do not contain the terms being proposed for addition to our general definition rule. The APCD is proposing that the new definitions be added to Rule 102 because the terms are used in more than one rule. Where a definition is applicable to only one rule, the SBC places the definition in that rule only. Generally, the definitions being added to Rule 102 are needed to clarify terms that are used in Rule 202 (Exemptions to Rule 201) and Rule 333 (Control of Emissions from Reciprocating Internal Combustion Engines).

AUTHORITY TO CONSTRUCT (ATC) REQUIREMENTS (SBC RULE 201.D)

The changes to SBC Rule 201.D include:

1. clarifying the *ATC required* provision by including the "using" and "use" terms, and
2. removing the potential ATC/PTO requirement for the use of pile drivers, dredges, pipe-laying, and derrick barges (Section 201.D.2) and adding exemption language to Rule 202.

Regarding the above item 1, the SBC is the first air district to add the "using" and "use" terms. We are adding these terms for consistency with the Health and Safety Code and to allow for clearer exemptions. On item 2 above, the adjoining air districts do not exempt pile drivers, dredges, pipe-laying, and derrick barges.

PERMIT EXEMPTIONS (SBC RULE 202)

These are in several categories.

- **Exceptions to Permit Exemptions.** Currently, SBC has one exception to the permit exemptions. It indicates any equipment, activity, or operations proposed by an application to be subject to an Emission Reduction Credit is not exempt.

  SJV and SLO have several exceptions to their permit exemptions. Their exceptions range from negating the exemption for an emission unit subject to New Source Performance Standards to negating an exemption where the owner of an otherwise exempt emission unit specifically requests a permit to operate. VC does not have any exceptions to its exemption rule.

- **Temporary Equipment Exemption.** SBC Rule 202.D.5 exempts temporary equipment provided certain conditions are met (e.g., emissions are 1 ton per year or less). SJV, SLO, and VC do not have an

exemption provision for temporary equipment.

- **Exemption for Stationary Sources that have Uncontrolled Actual Emissions less than 1 Ton per Year.** This is an existing permit exemption in SBC Rule 202. SJV, SLO, and VC do not have a stationary source exemption provision.

- **General Provision to Accumulate Ratings When Several Equipment Units are Used in the Same Process.** The SBC permit exemption rule does not currently include a provision on accumulating the ratings of equipment used in the same process for determining exemption applicability. The SJV and VC rules do not have such a provision either. However, the SLO Rule 201 Sections B.1 and B.2 include such a provision. SBC staff proposes a new provision that is similar to the SLO provision for SBC Rule 202, general provision D.15 and reflects our long-standing implementation.

- **General Provision to Require Emission Offsets for Equipment Used in Construction Activities.** This provision, currently found in SBC Rule 202.F.3, requires emission offsets if the combined emissions from all construction equipment used to construct a stationary source that requires an Authority to Construct or Permit to Operate exceed 25 tons of any pollutant (CO not included) in a 12 month period. The APCD proposes relocating the provision into the general provisions of Rule 202 (new Section D.16).

  None of the adjoining air districts have a similar general provision to require offsets if emissions from construction equipment used to construct a stationary source requiring an Authority to Construct or Permit to Operate exceeds 25 tons per 12 month period.

- **General Provision on not Allowing Derated Equipment to be Exempt**. SBC staff propose adding provisions to Rule 202 specifying that no compression/spark ignition engine, gas turbine engine or combustion equipment otherwise subject to permit shall be exempt because it has been derated. The basis for this approach is that permitting derated equipment provides a method to ensure that the derating is enforceable and permanent.

  SJV and VC rules do not have provisions that address equipment derating. SLO Rule 4701, Section 3.6, infers that derated engines are required to be permitted.

- **Single-Engine Exemption Cut Off Rating.** The SBC Rule 202 exemption cut-off on a single engine basis is currently 100 brake horsepower. The EPA recommends that this cut off be less than 50 brake horsepower. Also, the state Airborne Toxic Control Measure for Portable Compression Ignition Engines applies to engines rated at 50 brake horsepower and greater. Therefore, for consistency with the ATCM, the APCD proposes that the permit requirements also apply to engines rated 50 brake horsepower or greater. (The *multiple small spark ignition engine* exemption/permitting provision - see next bulleted item - supersedes the single-engine exemption provision for sources with multiple spark ignition engines.)

  SJV exempts engines with horsepower ratings of 50 or less. VC and SLO rules exempt engines rated less than 50 brake horsepower.

- **Stationary Sources with Multiple Small (Greater Than 20 to Less Than 50 Brake Horsepower) Spark Ignition Engine Exemption/Permitting Provision.** Currently, the SBC Rule 202 exempts spark ignition engines in the *20 to 100 brake horsepower* range, if the aggregate rating of all such engines at a stationary source is 500 brake horsepower or less. Conversely, if the aggregate of such engines exceeds 500 brake horsepower, permits are required.

  Under the proposed revised Rule 202 provision, if spark ignition engines in the *greater than 20 to less than 50 brake horsepower* range have an aggregate rating less than 400 brake horsepower (approximately an uncontrolled potential to emit less than 40 tons of NOx per year) at a stationary source, the engines are exempt. Conversely, under the proposed revised rule, if the engines in this range have an aggregate rating of 400 brake horsepower or greater, then permits are necessary.

SJV, SLO, and VC do not have an exemption or permitting provision for multiple small spark ignition engines at a stationary source.

- **Exemption for Gas Turbine Engines**. The existing SBC Rule 202, Section F.1.f provision indicates gas turbines with a maximum heat input rate of 3 million British thermal units per hour or less are exempt. Staff plan to maintain this threshold and allow limited same-process additions of natural gas-fired microturbines that have been certified by the ARB, provided the potential annual emissions of each affected pollutant does not exceed 1 ton (except carbon monoxide, which shall not exceed 5 tons).

  SJV has a specific exemption for gas turbines that have a maximum heat input rating of 3.0 million British thermal units per hour or less and a general provision to exempt low emitting units. *Low emitting units* are emission units that have an uncontrolled emission rate of any single contaminant that is less than or equal to 2 pounds per day or, if greater than 2 pounds per day, less than or equal to 75 pounds per year.

  SLO exempts gas turbines rated 3.0 million British thermal units per hour or less. VC exempts gas turbines that have a rated full load output of less than 0.30 megawatts (300 kilowatts).

- **Exemption for Engines Rated at Less than 50 Brake Horsepower Used in Military Tactical Support Operations and Other Miscellaneous Operations**. This is an existing provision in SBC Rule 202. Unlike SBC, SJV, SLO, and VC exempt all engines rated less than 50 brake horsepower, regardless of the use of multiple small engines at a stationary source. Hence, the adjoining air districts do not have a need for an exemption for small engines (less than 50 brake horsepower) used in military tactical support operations and other miscellaneous operations.

- **Exemption for Engines Used in Conjunction with Offshore Drilling Equipment.** The current SBC provision exempts offshore drilling equipment, provided the emissions from such equipment are less than 25 tons per stationary source of any affected pollutant during any 12 month period. The APCD proposes to delete this exemption.

  Due to its geographical location, SJV does not regulate an area that could potentially have offshore drilling. SLO and VC do not have exemptions for offshore drilling equipment.

- **Exemption for Specialty Equipment.** The SBC is proposing to add a new "specialty equipment" exemption for limited emergency situations located in the Outer Continental Shelf or State Territorial Waters. SJV does not regulate activities in the OCS or STW. SLO and VC do not have exemptions for the use of specialty equipment in the OCS or STW.

- **General Permitting Provisions or Exemption for Equipment Used in Dredging, Pile Driving, Pipe-Laying Barges and Derrick Barges.** Currently SBC Rule 201.D.2 includes a provision that such equipment will require a permit if the potential to emit is 25 tons per any 12 month period or greater. Conversely, the equipment is exempt if the potential emissions are less than 25 tons per any 12 month period. The SBCAPCD proposes to modify and move the Rule 201.D.2 provisions to Rule 202.F.7. The provision is being expanded to include cable-laying vessels/barges. However, the exemption for dredges is being eliminated as these units are considered erected and subject to Rule 201.D.1.

  SJV Rule 2020, Section 4.4, and SLO Rule 201, Section C.2 indicate, "Locomotives, airplanes, and watercraft used to transport passengers or freight. This exemption is not intended to apply to equipment used for the dredging of waterways or to equipment used in pile driving adjacent to or in waterways." In addition to exempting locomotives, aircraft, and recreational watercraft, VC Rule 23.D.2 exempts marine vessels. (But not equipment mounted on them that would otherwise require a permit.)

  To summarize this permitting/exemption category comparison, the SJV, SLO, and VC rules do not exempt equipment used in pile driving, or cable and pipe-laying vessels/barges or derrick barges, regardless of the equipment's potential to emit. However, the SBC will provide exemptions for such equipment, provided

certain requirements are met.

- **Marine Vessel Engine Exemptions from New Source Review.** The APCD is proposing this exemption (Rule 202.F.8) to address concerns stemming from the deletion of the construction engine exemption. None of the adjoining air districts have a similar exemption.

- **Provision on a General Category Exemption not Applying to any Component which Otherwise Requires a Permit.** The general provision of SBC Rule 202.D.11 disallows exemptions in cases where individual components are permitted. The current SBC Rule 202.G.2 provision needs to be revised for improved clarity in light of the Rule 202.D.11 provision.

  SJV and VC exemption rules do not have this provision. The SLO Rule 201.A.2 indicates, "An otherwise exempt piece of equipment requires a permit if it is part of a process that requires a permit."

- **Exempting Powder Coating Operations.** The existing SBC Rule 202.I.5 exempts only polyurethane powder coating operations. Staff proposes expanding this exemption to include all powder coating operations, provided the ROC content of the powder coatings does not exceed five percent, by weight.

  The SJV Rule 2020, §6.8.3 exempts powder coating operations that use less than five pounds of coating material per day or less than fifty pounds of coating material per year. SLO staff exempt powder coating operations by their two pounds per day exemption. VC staff exempts powder coating operations via their Rule 23.F.11.b (use of coating materials less than 200 pounds per 12 month rolling period).

- **Exemptions for Wineries, Breweries, Distilleries and Similar Facilities.** The adjoining air districts do not have a specific exemption for these facilities.

- **Exemption for Portable Water Heaters Used for Underwater Diving Activities.** None of the adjoining air districts have a specific exemption for these boilers.

- **Airborne Laser Program Exemption from New Source Review.** This new exemption (Rule 202.P.14) is a limited provision being proposed in response to a request by Vandenberg Air Force Base. Thus, LSO, SJV, and VC rules do not have a similar exemption.

- **Exemption for Solvent Wipe Cleaning Operations.** The SBC is proposing changes to the existing solvent wipe cleaning exemption. Sources using 55 gallons per year or less are exempt from the SBC permitting requirement. The SJV Rule 2020, Section 6.9.3, and the SLO Rule 201, Section J.2.c, provide an exemption for solvent cleaning operations using less than 25 gallons of solvent per year (with a monthly recordkeeping requirement). The VC Rule 23.10.d provides an exemption for solvent cleaning operations having emissions less than 200 pounds per rolling 12-month period per source. The VC 200 pound limit is for each ROC, methylene chloride, 1,1,1 trichloroethane, and perchloroethylene. Also, the exemption does not apply for coating, graphic arts, adhesive/sealant and polyester resin operations.

  In summary:

  1. The maximum allowable solvent usage under the SJV and SLO exemptions is about fifty percent less than the SBC limit.
  2. The VC exemption is based on meeting an emissions rate criteria on a per ROC (and a limited per hazardous air pollutant) basis. The exemption excludes certain processes from the exemption.

ENGINE PROHIBITORY RULE REQUIREMENTS (SBC RULE 333)

The SBC and SLO engine rule provisions can be regarded as "reasonably available control technology" requirements, whereas SJV and VC rules are stricter and are considered "best available retrofit control technology." This results in the SJV and VC engine emission limits being lower (stricter) than the SBC and SLO rules.

The *engine prohibitory rule requirements* have several components, as outlined below.

- **Applicability.** SBC staff proposes to make the engine prohibitory rule *applicability* similar to SLO and VC: the requirements apply to engines rated at 50 brake horsepower and greater. The SJV engine rules apply to engines rated greater than 50 brake horsepower.

- **Exemptions.** As is the case for general permit exemptions, the adjoining air districts have a wide range of exemptions in their engine rules. For the engine prohibitory rule exemptions, there are two types of exemptions:

  a) Total Exemption: Engines are exempt from the prohibitory rule in its entirety, and

  b) Partial Exemption: Engines are partially exemption from the prohibitory rule requirements (e.g., exempt from the emission limits, but not from the recordkeeping provisions).

  The following summarizes comparisons of the different SBC Rule 333 exemptions.

  1. **Engines Burning Landfill Gas (SBC Partial Exemption).** A source claiming this exemption in Santa Barbara County needs to maintain fuel monitoring information and other documentation to support the claim of exemption. SJV, SLO, and VC engine rules do not exempt engines burning landfill gas.

  2. **Engines Exempt from Permit (SBC Total Exemption).** SJV engine Rule 4701 (Phase 1) infers engines exempt from permit are exempt from the prohibitory rule in the rule's *applicability* provision. The SJV engine Rule 4702 (Phase 2) and the SLO and VC engine rules do not have this exemption.

  3. **Engines Derated to Less Than 50 Brake Horsepower (SBC Rule 333 Total Exemption).** For derated engines, the SJV Rule 4701 provides a partial exemption and the SJV Rule 4702 provides a total exemption. The SLO and VC rules do not have any exemptions for derated engines.

  4. **Compression Ignition Emergency Standby Engines (SBC Total Rule 333 Exemption).** Except for administrative provisions necessary to substantiate the exemption, SJV and SLO rules exempt emergency engines. VC exempts emergency standby engines, provided their maintenance operations do not exceed 50 hours per calendar year. Exempting spark ignition emergency standby engines from the prohibitory rule is consistent with the ARB RACT/BARCT Determination. Also, compression ignition emergency standby engines are subject to the state ATCM. By exempting these engines from Rule 333 in its entirety, the APCD is eliminating the engine owner and operator's Rule 333 compliance burden.

  5. **Engines that Operate Less than 200 Hours per Year (SBC Partial Exemption).** All of the adjoining air districts have this exemption; the VC rule exempts these engines from their entire engine rule.

  6. **Compression Ignition ARB or EPA Tiered Engines (SBC Partial Exemption).** None of the adjoining air districts have the provision proposed in new Section 333.B.3. This section will provide a partial exemption for ARB- or EPA-tiered diesel-fueled engines. Assuming the routine monitoring checks with a portable analyzer do not exceed 560 parts per million of NOx at 15% oxygen, these engines will not need to submit a compliance plan. Further, they will not be subject to initial and biennial source testing provisions.

- **Definitions.** Generally, the definitions are the same between the air districts. SBC is recommending the relocation of some of the definitions currently found within the prohibitory rule be moved into the general definition rule (102). The recommendation is made only for those terms that appear in more than one SBC rule.

- **Requirements.** There are several components to the engine rule requirements, as shown in the following summaries.

  1. **Engine Identification.** Historically, identification of permitted engines has been required through a permit condition. Except for SLO, none of the adjoining air districts has the requirement that the owner or operator identify the engines. SLO incorporates the engine identification requirement within the *Engine Operator Inspection Plan.*

  2. **Elapsed Operating Time Meters and Fuel Meters.** SBC Rule 333 currently requires elapsed operating time meters. Also, fuel meters are required for engine fired on landfill gas and engines subject to source testing. SBC staff proposes that all engines subject to Rule 333 be equipped with fuel meters. This requirement is consistent with the ARB RACT/BARCT Determination.

     SJV requires engines to be equipped with these meters, but SLO and VC do not.

  3. **Continuous Monitoring Systems.** For qualifying new engines (rated ≥ 1,000 bhp, with > 2,000 hours per year allowable operating schedule), the amended Rule 333 will require the use of a continuous emissions monitoring system. The SJV rule and the ARB RACT/BARCT Determination require a continuous monitoring system, which may be a continuous emissions monitoring system (CEMS), a parametric emissions monitoring system (PEMS), or an alternative monitoring system approved by the APCO. Unlike the proposed SBC requirement (which applies only to new engines), the SJV and ARB RACT/BARCT Determination provisions apply to existing and new engines. SLO and VC rules do not include a requirement for and continuous monitoring system.

  4. **Emission Limits.** All adjoining air district engine rules have emission limits that vary due to the level of control (RACT vs. BARCT) as described earlier. SBC proposes to use the diesel engine RACT limit from San Diego and the limits from the ARB RACT/BARCT Determination for the spark ignition engines.

  5. **Alternative Emission Control Plans.** The SBC engine rule currently has an outdated Alternative Emission Control Plan (AECP) provision. SBC staff recommends that the existing AECP be deleted as the deadline for submitting such plan has passed and the APCD did not receive any plans.

     SJV includes an AECP provision, but SLO and VC do not.

  6. **Limiting use of Anhydrous Ammonia to Meet Emission Limits.** The SBC Rule 333 currently prohibitions the use of anhydrous ammonia. At the request of the regulated community, this prohibition is being modified to allow its use provided certain safety and potential environmental impact issues are addressed. None of the adjoining air districts have a prohibition on the use of anhydrous ammonia. (The SLO and VC rules limit the amount of ammonia from an emission control system to 20 parts per million by volume. Neither the SBC or the SJV engine rules have such a limit.)

  7. **Engine Inspection and Maintenance Plans.** The existing and proposed revised SBC engine rule includes an engine Inspection and Maintenance Plan. Also, all adjoining air districts require such plans.

     VC and SLO requirements indicate inspections shall be conducted every quarter or after every 2,000 hours of engine operation; and, in no event, shall the frequency of inspection be less than once per year. SJV Rule 4701 (Phase 1) and portions of the SJV Rule 4702 (Phase 2) require quarterly inspections.[a] However, the SJV Rule 4702 (Phase 2) requires monthly inspections for prime engines

[a] SJV Rule 4702 (Phase 2) allows quarterly engine inspections for engines that are used for emergency purposes that have no more than 200 hours per year of maintenance operations and engines that operate no more than 200 hours per year.

operating in excess of 200 hours per year and other engines not subject to the quarterly inspection frequency.

None of the adjoining air district rules have a provision that an excessive portable analyzer instrument reading will not be a violation if corrective action is taken within 15 days of finding. This is a provision in the current and the proposed modified Rule 333.

8. **Compliance Plans.** The existing and proposed revised SBC engine rule includes a requirement for Compliance Plans. The SJV engine rule has a section on Emission Control Plans that requires the owner to inform the Control Officer of the actions to be taken to satisfy the emission requirements of the rule. The SJV provision on Emission Control Plans is essentially the same as the SBC provisions on Compliance Plans.

   The SLO and VC *Engine Operator Inspection Plan* provisions include a requirement for identification of the type of NOx control system to be used for compliance. Other than these requirements for identification, SLO, and VC do not have specific requirements for a Compliance Plan or an Emission Control Plan.

9. **Source Testing.** The existing and proposed revised SBC engine rule includes requirements for testing. All of the adjoining air districts have a requirement for conducting source tests, with specificity on the source test methods. The source testing frequency ranges from annually to every 8,760 hours of operation or 3 years, whichever occurs first. The ARB RACT/BARCT Determination specifies a source testing frequency of at least once every 24 months. The SBC biennial source testing frequency is consistent with the ARB-recommended testing frequency.

10. **Recordkeeping.** SJV, SLO, SBC, and VC engine rules have recordkeeping provisions on engine operating logs, inspection and maintenance, and CEMS data. SBC also includes recordkeeping provisions for engines subject to the less than 200 hours per year exemption and Engine Heat Input Verification Plans.

11. **Compliance Schedule.** The existing and proposed modified SBC Rule 333 includes a provision on compliance schedules. The proposed amended SBC Rule 333 compliance schedule is complicated somewhat by the fact that some engine categories have new and stricter requirements being phased in by the same rule. All of the adjoining air district engine rules include a compliance schedule. SJV has taken the approach of issuing separate rules for phased approaches when implementing new emission limits (e.g., Rule 4701 and Rule 4702).

12. **Reporting.** The existing and proposed modified SBC Rule 333 do not require annual reporting. Likewise, the SJV engine rules do not have annual reporting provisions. However, the SLO and VC engine rules require annual reports.

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Appendix L
Santa Barbara County
Impacts of the Revised Rules to Industry and the APCD

Industry Impacts

The revised engine exemptions and rules will cause varying degrees of impacts depending on the engine size, engine type, and its operating schedule. Sources with permitted engines rated at less than 50 brake horsepower are not subject to Rule 333 and will experience fewer impacts than sources with engines needing to comply with Rule 333. The following provides information on the impacts from the various rule revisions and the sources potentially impacted by the changes.

RULE 102, DEFINITIONS

The APCD is unaware of any source that will be impacted by the addition of the new definitions.

RULE 201, PERMITS REQUIRED

Impacts from the Rule 201.D changes are interrelated with the deletion of the Rule 202 construction engine exemption and the new Rule 202 exemptions for 1) pile drivers, cable-laying and derrick barges and their associated marine vessels, and 2) specialty equipment. There are no known sources that will be specifically impacted by the proposed revisions to Rule 201.

RULE 202, EXEMPTIONS TO RULE 201

In general, the APCD is unaware of specific sources that will be impacted by the numerous minor and administrative-type Rule 202 changes. Some of the new exemptions were added in response to requests by the regulated community. Thus, these are expected to provide beneficial impacts to industry.

The removal of the construction exemption will require construction engine owners to either register in the statewide portable equipment registration program or obtain an APCD Permit to Operate. Due to construction engines being currently exempt from permitting, the APCD has no data available to determine which owners will be impacted by this change.

Other exemption changes that will cause engine permitting impacts include the revisions to the spark ignition engine exemption and the repeal of the offshore well drilling exemptions. The following provides information on the impacts from those changes.

Some sources will be affected by the 202.F.1.f general spark ignition engine exemption threshold revisions and the 202.F.6 offshore drilling equipment exemption deletion. The APCD does not know the exact number or location of the engines that will require permits as a result of the rule revision because of the current "permit exempt" status for these engines. Under the proposed amendments, there will be several sections in Rule 202.F that will make currently exempt engines subject to permitting. As shown in Appendix B, 89 engines in the following categories will become subject to permitting due to the various Rule 202 changes:

1. 16 spark ignition engines in the 50 to 100 brake horsepower range (reference Rule 202.F.1.f).
2. 26 spark ignition engines in the greater than 20 to less than 50 brake horsepower range where the aggregate rating is 400 bhp (reference Rule 202.F.1.f).
3. 40 spark ignition engines that have been derated (reference Rule 202.F.1.f).[a]

[a] The removal or modification of an engine derating mechanism will constitute a modification requiring APCD approval in the form of an Authority to Construct. Such a proposal will be subject to Regulation VIII, New Source Review.

4. 7 well drilling engines (reference deleted Rule 202.F.6).

Based on our 2005 inventory (and as detailed in Appendix B), 9 companies (all associated with oil and gas production or processing) will need to obtain permits for 89 engines due to changes to Rule 202.F.

Table 1 summarizes the anticipated **fee impacts** due to the initial permitting, equipment modifications, and the initial source testing of the engines becoming subject to Rule 333 limits for the first time.[a] The fee impact from the initial permitting of the 89 engines that lose their exemption is $51,118.[b] The total fee for the ten engines to be modified to comply with Rule 333 emission limits is $6,4589[c] One facility, Venoco's Platform Holly, has three well drilling engines that are already controlled, but will require a source test. The fee associated with the testing of those engines is estimated to be $2,237. Three other sources have engines that will require source testing:

1. Pacific Operators Offshore, Inc. (SSID 08801) – fee to be assessed on the cost reimbursement basis.

2. Purisima Hills LLC – Barham Ranch, H.P. Boyne Lease (SSID 01153) – the total fee for the source testing of the six engines is $3,404.

3. SBC Resource Recovery and Waste Mgmt Div., County of Santa Barbara – Foxen Canyon (SSID 03706) – the total fee for the source testing of the two engines is $1,849.

There are nine currently permitted engines rated less than 50 brake horsepower that will no longer be subject to permitting under the proposed amended Rule 202.F.1.f exemption. Table 2 (on page L-5) lists the engines and indicates there will be an overall reduction of $1,771 in triennial reevaluation fees for the two sources.

Table 3 (on page L-7) provides a summary of the estimated company **compliance cost impacts** associated with engines needing to comply with the emission limits for the first time or needing to comply with the revised emission limits. These costs are in addition to the source testing, permitting, and/or permit modification fees shown in Table 1.

[a] Sources will have additional ongoing fee impacts (e.g., increased annual fees, reevaluation fees for engines that become subject to permitting, and recurring source test fees if subject to the emission limits).
[b] Includes the application filing fee and the PTO fee as shown in Table 1. Some sources have their fees assessed on a cost reimbursement basis for which there is no present estimate.
[c] Includes the ATC and PTO filing fees, the ATC modification fee, and the PTO modification fee as shown in Table 1. The three sources anticipated to have the ten engines requiring modification are shown in Appendix H and include: 1) County of Santa Barbara – Foxen Canyon (SSID 3706), 2) Pacific Operators Offshore, Inc. – Platforms Hogan and Houchin (SSID 8001), and Purisima Hills – Barham Ranch, H.P. Boyne Lease (SSID 01153). Some sources have their fees assessed on a cost reimbursement basis for which there is no present estimate.

Table 1. SUMMARY OF THE ANTICIPATED FEE IMPACTS DUE TO INITIAL ENGINE PERMITTING, PERMITS FOR ENGINE MODIFICATIONS, AND THE INITIAL ENGINE SOURCE TESTS[a]

Company Description and Stationary Source Description	Col.1 Stationary Source No.	Col.2 Initial App'n Fee	Col.3 Initial PTO Fee	Col.4 Increased Annual Emission Fee	Col.5 Increased Air Toxic Program Fee	Col.6 Increased AQAP Fee	Col.7 App'n Fee for ATC Mod'n	Col.8 ATC Mod'n Fee	Col.9 Source Test Fee	Col.10 App'n Fee for PTO Mod'n	Col.11 PTO Mod'n Fee	Col.12 Source's Overall Fee Impacts
B.E. Conway Energy, Inc., Conway Oil, Inc. - Magenheimer	01944	$325	$219	$0	$0	$0	-	-	-	-	-	$544
Catco Energy	01510	$325	$1,900	$3,657	$286	$1,553	-	-	-	-	-	$7,721
Elysium Russell, LLC., Elysium Russell, LLC.	04639	$325	$2,115	$5,353	$326	$2,403	-	-	-	-	-	$10,522
ExxonMobil Production Company, Exxon - SYU Project	01482	$325	Reimb.	$448	$0	$900	-	-	-	-	-	$1,673
Greka Oil & Gas, Inc., Clark Avenue Source	02200	$325	$1,967	$111	$8	$607	-	-	-	-	-	$3,018
Greka Oil & Gas, Inc., Continental	05032	$325	$286	$0	$0	$0	-	-	-	-	-	$611
Greka Oil & Gas, Inc., Gato Ridge	02680	$325	$1,415	$92	$10	$40	-	-	-	-	-	$1,882
Greka Oil & Gas, Inc., Los Flores	08678	$325	$1,955	$0	$0	$0	-	-	-	-	-	$2,280
Greka Oil & Gas, Inc., SMV East	08675	$325	$1,543	$1,169	$0	$517	-	-	-	-	-	$3,555
Greka Oil & Gas, Inc., Zaca Field	08702	$325	$669	$698	$77	$311	-	-	-	-	-	$2,079
Pacific Operators Offshore, LLC., Pacific Operators - Carpinteria	08001	$325	Reimb.	$1,606	$0	$1,120	$325	Reimb.	Reimb.	$325	Reimb.	$3,700

[a] Based on the 2005 Emission Inventory. Data for sources with multiple engines is summarized and shown in a single row.

Company Description and Stationary Source Description	Col.1 Stationary Source No.	Col.2 Initial App'n Fee	Col.3 Initial PTO Fee	Col.4 Increased Annual Emission Fee	Col.5 Increased Air Toxic Program Fee	Col.6 Increased AQAP Fee	Col.7 App'n Fee for ATC Mod'n	Col.8 ATC Mod'n Fee	Col.9 Source Test Fee	Col.10 App'n Fee for PTO Mod'n	Col.11 PTO Mod'n Fee	Col.12 Source's Overall Fee Impacts
Plains Exploration & Production Company[a]	04632	-	-	-$2,404	-$162	-$1,076	-	-	-	-	-	-$3,642
Purisima Hills LLC, Purisima Hills LLC - H.P. Boyne, Barham Ranch	01153	$325	$1,741	$725	$0	$323	$325	$1,741	$3,404	$325	$1,741	$10,651
Santa Maria Refining Company, Santa Maria Refining - Armelin	03736	$325	$1,107	$0	$0	$0	-	-	-	-	-	$1,432
SBC Resource Recovery & Waste Mgmt Div., County of Santa Barbara - Foxen Canyon	03706	-	-	-	-	-	$325	$513	$1,849	$325	$513	$3,525
Venoco, Inc., Venoco - Ellwood, Platform Holly	01063	$325	$11,872	$596	$282	$204	-	-	$2,237	-	-	$15,516
Subtotals		$4,550	$26,789	$12,051	$827	$6,901	$975	$2,254	$7,490	$975	$2,254	
		Fee Impact from the Initial Permitting of the ICEs Becoming Subject to Rule 201, Permits Required: $51,118[b]					Fee Impact from Engine Modifications to Comply with the Emission Limits: $13,949[c]					
											Total	$65,067

[a] The fee decreases are due to 8 currently permitted engines becoming exempt under the proposed amended Rule 202.F.1.f provisions.
[b] Sum of Columns 2 – 6.
[c] Sum of Columns 7 – 11.

Table 2. SUMMARY OF ANTICIPATED PERMIT REEVALUATION FEES REDUCED DUE TO CURENTLY PERMITTED ENGINES BECOMING EXEMPT BY THE PROPOSED AMENDED RULE 202[a]

STATIONARY SOURCE	FACILITY	SSID	FID	DEVICE No.	DEVICE DESCRIPTION	RATING (Bhp)	REDUCED REEVAL FEES
E & B - South Cuyama	E & B IC Engines	01073	08916	006338	IC Engine: W-40	24	$93
Pt. Pedernales/Lompoc Oil Fields	Lompoc IC Engines	04632	04218	004495	IC Engine: #12020	46	$216
Pt. Pedernales/Lompoc Oil Fields	Lompoc IC Engines	04632	04218	004498	IC Engine: #7440	46	$216
Pt. Pedernales/Lompoc Oil Fields	Lompoc IC Engines	04632	04218	004504	IC Engine: #11605	39	$175
Pt. Pedernales/Lompoc Oil Fields	Lompoc IC Engines	04632	04218	004505	IC Engine: #9709	46	$216
Pt. Pedernales/Lompoc Oil Fields	Lompoc IC Engines	04632	04218	004506	IC Engine: #9305	46	$216
Pt. Pedernales/Lompoc Oil Fields	Lompoc IC Engines	04632	04218	004508	IC Engine: #8501	46	$216
Pt. Pedernales/Lompoc Oil Fields	Lompoc IC Engines	04632	04218	004509	IC Engine: #8483	46	$216
Pt. Pedernales/Lompoc Oil Fields	Lompoc IC Engines	04632	04218	007034	IC Engine: #9229	46	$205
TOTAL							$1,771

[a] Engines shown in Table 2 are currently permitted because the total aggregate of engines in the range of 20 to 100 bhp at the source exceeds 500 bhp. These engines are slated to become exempt because the total aggregate brake horsepower rating of the engines in the range of 20 to < 50 bhp at the source does not exceed 400 bhp.

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Table 3. SUMMARY OF THE ANTICIPATED COMPLIANCE COST IMPACTS[a]

Company Description and Stationary Source Description	Stationary Source No.	Initial Source Test Cost	Total Capital Investment	Annual Inspection and Monitoring Costs	Increased Annual Operating & Maintenance Cost	Sum of the Listed Cost Impacts to the Source
Pacific Operators Offshore, LLC, Pacific Operators - Carpinteria	08001	$5,200	$4,000	$9,600	$4,000	$22,800
Purisima Hills LLC - Barham Ranch, H.P. Boyne Lease	01153	$12,480	$12,000	$14,400	$12,000	$50,880
SBC Resource Recovery & Waste Mgmt Div., County of Santa Barbara - Foxen Canyon	03706	$5,200	$4,000	$4,800	$4,000	$18,000
Venoco, Inc., Venoco - Ellwood, Platform Holly	01063	$7,800	$0	$14,400	$0	$22,200
					Total	$113,880

RULE 333, CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES

Impacts from the proposed amended Rule 333 will occur for two general reasons: 1) the population of engines subject to Rule 333 is increasing and 2) Rule 333 requirements are being revised. Table 4 lists the engines that are or will become subject Rule 333. Engines that are/will be subject to the less than or equal to 200 hour per year recordkeeping provisions of Rule 333 are included in this table as well.

Table 5 summarizes the revised Rule 333 provisions that will apply. The requirements are broken out based on engines being subject to certain exemptions or being subject to the Rule 333 emission limits. Table 5 includes notes on the requirements that are new and revised.

[a] Based on the 2005 Emission Inventory. These costs are in addition to any permitting or source testing fees assessed by the APCD.

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Table 4. ENGINES THAT ARE OR WILL BECOME SUBJECT RULE 333[a]

Company Description and Stationary Source Description	Stationary Source No.	Device No.	Device	Becoming Subject to Rule 333	Currently Subject to Emission Limits	Becoming Subject to Emission Limits	Engine is Exempt from Emission Limits Because it Burns Landfill Gas	Current Permit has a "< 200 Hours per Year" Limit	Engines Becoming Subject to Rule 333 with Operations < 200 Hours per Year per 2005 Emission Inventory[b]
Adams Services, Inc., Adams Services - Degassing	10242	009953	IC Engine: Degassing Unit					X	
BreitBurn Energy Company LP, BreitBurn Energy- Orcutt Hill	02667	004305& 004306	IC Engines: (#12205 & #12195)					X	
BreitBurn Energy Company LP, BreitBurn Energy- Orcutt Hill	02667	004434 & 004435	IC Engines: (#19766 & #12163 - Fox Injection)		X				
City of Lompoc, City of Lompoc - WWT Plant	01708	001192, 001193, & 001194	IC Engines: Air Compressors		X				
DCOR, LLC, Platform Habitat	08012	004972, 004973, & 004985	IC Engines: South Crane, North Crane, & Compressor		X				
DCOR, LLC, South County/Dos Cuadras, PF A	08003	004872 & 004873	IC Engines: South Crane & North Crane		X				
DCOR, LLC, South County/Dos Cuadras, PF B	08003	004886 & 004887	IC Engines: 15-Ton Pedestal Crane (South Crane) & 25-Ton Pedestal Crane (North Crane)		X				
DCOR, LLC, South County/Dos Cuadras, PF Hillhouse	08003	004904	IC Engine: 15-Ton Pedestal (South) Crane					X	
DCOR, LLC, South County/Dos Cuadras, PF Hillhouse	08003	004905	IC Engine: 25-Ton Pedestal (North) Crane		X				
DCOR, LLC, South County/Dos Cuadras, PF C	08003	004923	IC Engine: 15-Ton Pedestal Crane (South Crane)					X	

[a] Based on the 2005 Emission Inventory.
[b] The APCD assumes that these engines will be subject to Rule 333 but exempt from the emission limits and the permit will have a condition limiting operations to less than 200 hours per year.

Company Description and Stationary Source Description	Stationary Source No.	Device No.	Device	Becoming Subject to Rule 333	Currently Subject to Emission Limits	Becoming Subject to Emission Limits	Engine is Exempt from Emission Limits Because it Burns Landfill Gas	Current Permit has a "< 200 Hours per Year" Limit	Engines Becoming Subject to Rule 333 with Operations < 200 Hours per Year per 2005 Emission Inventory[b]
DCOR, LLC, South County/Dos Cuadras, PF C	08003	004924	IC Engine: 25-Ton Pedestal Crane (North Crane)		X				
DCOR, LLC, South County/Dos Cuadras, PF Henry	08003	004938	IC Engine: 15-Ton Pedestal (South) Crane					X	
DCOR, LLC, South County/Dos Cuadras, PF Henry	08003	004939	IC Engine: 25-Ton Pedestal (North Crane)		X				
E & B Natural Resources Mgt. Corp., E & B - South Cuyama	01073	006388, 006389, 006390, 006391, 006392, 006393, 006394, 006395, 006396, 006397, 006400, 006401, 006402, 006403, & 006404	15 IC Engines: W-2, W-3, W-8, W-4, W-12 Wastewater Inj., W-11, W-15, W-42 Wastewater Inj., B-5 Wastewater Inj., B-6, HRA #9, HRA #10, HRA #11, HRA #12, & Diesel Fired Unit		X				
ExxonMobil Production Company, Exxon - SYU Project, PF Hondo	01482	004956 & 004957	IC Engines: West and East Cranes		X				
ExxonMobil Production Company, Exxon - SYU Project, PF Harmony	01482	005326	Pedestal Crane East		X				
ExxonMobil Production Company, Exxon - SYU Project, PF Harmony	01482	005346	Auxiliary Drill Generator	X					X
ExxonMobil Production Company, Exxon - SYU Project, PF Heritage	01482	005350	Pedestal Crane East		X				
ExxonMobil Production Company, Exxon - SYU Project, PF Heritage	01482	005370	Auxiliary Drill Generator	X					X
Greka Oil & Gas, Inc., Casmalia	04630	004471	IC Engine: (#4gv1401)					X	

Company Description and Stationary Source Description	Stationary Source No.	Device No.	Device	Becoming Subject to Rule 333	Currently Subject to Emission Limits	Becoming Subject to Emission Limits	Engine is Exempt from Emission Limits Because it Burns Landfill Gas	Current Permit has a "< 200 Hours per Year" Limit	Engines Becoming Subject to Rule 333 with Operations < 200 Hours per Year per 2005 Emission Inventory[b]
Greka Oil & Gas, Inc., Cat Canyon	02658	006466, 006467, 006468, & 007289	IC Engines: Gas Compressor (12253), Waukesha (110007- Inj. #2), #20 6LRZ (#912330) (NSCR), & Compressor #1 #F3521GSI		X				
Greka Oil & Gas, Inc., Clark Avenue Source	02200	004178 & 004179	IC Engine: #912330 & IC Engine: #912331		X				
Greka Oil & Gas, Inc., Continental	05032	003155	IC Engine: Well #2: (11705)	X					X
Greka Oil & Gas, Inc., Gato Ridge	02680	005203, 005204, 005205, 005206, & 005207	IC Engines: Pumping Units	X					X
JEM Degassing, JEM Degassing	08685	006028 & 006029	IC Engines: Degassing (#16828 &#16829)					X	
Lash Construction, Lash Const. (5 S. Calle Cesar Chavez)	10309	010082	Diesel IC Engine (may be superseded by DID 107679)		X				
Mafi-Trench Corporation, Mafi-Trench	01717	001195	IC Engine: Air Compressor		X				
MM Tajiguas Energy LLC/NEO Tajiguas LLC, County of SB-Tajiguas Landfill	03707	006523	IC Engine / Generator				X		
Nieto & Sons, Incorporated, Nieto & Sons - Degassing	08727	006027	IC Engine: Degassing Unit					X	
Pacific Operators Offshore, LLC, Pacific Operators - Carpinteria, PF Hogan	08001	004848	IC Engine: South Crane					X	
Pacific Operators Offshore, LLC, Pacific Operators - Carpinteria, PF Hogan	08001	004849	IC Engine: North Crane		X				
Pacific Operators Offshore, LLC, Pacific Operators - Carpinteria, PF Houchin	08001	004860	IC Engine: South Crane					X	

Company Description and Stationary Source Description	Stationary Source No.	Device No.	Device	Becoming Subject to Rule 333	Currently Subject to Emission Limits	Becoming Subject to Emission Limits	Engine is Exempt from Emission Limits Because it Burns Landfill Gas	Current Permit has a "< 200 Hours per Year" Limit	Engines Becoming Subject to Rule 333 with Operations < 200 Hours per Year per 2005 Emission Inventory[b]
Pacific Operators Offshore, LLC, Pacific Operators - Carpinteria, PF Houchin	08001	004861	IC Engine: North Crane		X				
Pacific Operators Offshore, LLC, Pacific Operators - Carpinteria, PF Hogan	08001	007107	IC Engine: Well Service Rig	X		X[a]			
Pacific Operators Offshore, LLC, Pacific Operators - Carpinteria, PF Houchin	08001	007108	IC Engine: Well Service Rig	X		X[a]			
Plains Exploration & Production Company, Pt. Pedernales/Lompoc Oil Fields	04632	004494	IC Engine: Purisima # 86 (#12130)					X	
Plains Exploration & Production Company, Pt. Pedernales/Lompoc Oil Fields, PF Irene	04632	005082 & 005083	IC Engine: North Crane & IC Engine: South Crane		X				
Purisima Hills LLC - Barham Ranch, H.P. Boyne Lease	01153	005908, 005909, 005910, 005911, 005912, & 009015	IC Engines: Well Pumps & Natural Gas-Fired Unit	X		X[a]			
Santa Barbara Sand & Top Soil Corp., Santa Barbara Sand & Top Soil - Ellwood	03695	003318	Material Plant Diesel Engine					X	
Santa Maria Refining Company, Santa Maria Refining - Armelin	03736	005947, 005949, 005950, & 006231	IC Engines	X					X
SBC Resource Recovery & Waste Mgmt Div., County of Santa Barbara - Foxen Canyon	03706	104269 & 106429	Diesel Fired IC Engines (Gen 4 and 5)		X[b]				

[a] Requires the use of an emission control technique.
[b] Requires the application of an enhanced emission control technique to both engines.

Company Description and Stationary Source Description	Stationary Source No.	Device No.	Device	Becoming Subject to Rule 333	Currently Subject to Emission Limits	Becoming Subject to Emission Limits	Engine is Exempt from Emission Limits Because it Burns Landfill Gas	Current Permit has a "< 200 Hours per Year" Limit	Engines Becoming Subject to Rule 333 with Operations < 200 Hours per Year per 2005 Emission Inventory[b]
SBC Resource Recovery & Waste Mgmt Div., County of SB-Tajiguas Landfill	03707	106679	Diesel Fired IC Engine (WP01)					X	
Southern California Gas Company, So Cal Gas - La Goleta	05019	001199, 001200, 001201, 001202, 001203, 001204, 001205, 001206, 005666, 005667, 005668, & 005669	Eight Gas Compressor IC Engines: Number 2, 3, 4, 5, 6, 7, 8, & 9 and four Electrical Generators: Number 1A, 2A, 3A, & 20A		X				
The Point Arguello Companies, The Point Arguello Project, PF Harvest	01325	005000, 005001, & 00502	IC Engines: Cranes (800A, 800B, &CR801)		X				
The Point Arguello Companies, The Point Arguello Project, PF Hermosa	01325	005029 & 005030	IC Engines: West & East Crane		X				
The Point Arguello Companies, The Point Arguello Project, PF Hidalgo	01325	005058 & 005059	IC Engines: West & East Crane		X				
United States Air Force, Vandenberg Air Force Base	01195	006088	IC Engine: (Building 511)					X	
United States Air Force, Vandenberg Air Force Base	01195	006182	IC Engine: Electrical Generator (Building 7425)		X				
Vandenberg Air Force Base, 30 CES/CEV, Vandenberg Air Force Base	01195	006184, 006185, & 006202	IC Engine (Hercules): Compressor, IC Engine (Deere): Compressor, & IC Engine: Diesel (Building 7437)					X	
Venoco, Inc., Venoco - Carpinteria	00027	000201, 000202, 000203, 000204, 000205, 00206, 100222, & 008166	Gas Compressor ICEs: IR #1, SACS Cooper (CA-83), IR #3, IR #4, IR #5, IR #6 & G-1; and a Diesel-Fired ICE		X				
Venoco, Inc., Venoco - Ellwood	01063	002336	IC Engine: Pedestal Crane		X				

Company Description and Stationary Source Description	Stationary Source No.	Device No.	Device	Becoming Subject to Rule 333	Currently Subject to Emission Limits	Becoming Subject to Emission Limits	Engine is Exempt from Emission Limits Because it Burns Landfill Gas	Current Permit has a "< 200 Hours per Year" Limit	Engines Becoming Subject to Rule 333 with Operations < 200 Hours per Year per 2005 Emission Inventory[b]
Venoco, Inc., Venoco - Ellwood	01063	009130, 009131, & 009132	IC Engines: Drilling Rig Generators #1, #2, & #3	X		X			
Venoco, Inc., Venoco - Ellwood Marine Terminal	01085	002437 & 002438	IC Engine: VRU & IC Engine: Generator		X				
			Totals	23	78	11[a]	1	20	12

[a] Some of these engines already comply with the emission limits (e.g., Venoco's devices numbered 009130 – 009132). For a list of engines requiring an emission control technique or an enhanced emission control technique, see Appendix H, Table 1, Emission Reductions or see the items with footnotes "a" and "b" on page L-10.

Table 5. SUMMARIZED RULE 333 REQUIREMENTS

CATEGORIES \ REQUIREMENTS	FUEL MONITORING AND RECORDKEEPING (333.B.1.a)	ENGINE IDENTIFICATION METHOD (333.D.1)	NONRESETTABLE ELASPED OPERATING TIME METER (333.D.2)	NONRESETTABLE FUEL METER (333.D.3)	RECORDKEEPING (333.J)	ONGOING USE OF AN EMISSION CONTROL TECHNIQUE (333.E)	NEW EMISSION CONTROL TECHNIQUE (333.E)	CONTINUOUS MONITORING SYSTEM (333.D.4)	INSPECTION AND MAINTENANCE PLAN (333.F)	REVISED I&M PLAN (333.F)	COMPLIANCE PLAN (333.G)	REVISED COMPLIANCE PLAN (333.G)	SOURCE TESTING (333.I)
ENGINES EXEMPT FROM RULE 333 EMISSION LIMITS													
1. ENGINES BURNING 75% LANDFILL GAS (333.B.1.a)	X												
2. PERMITTED ENGINES OPERATING < 200 HOURS/YEAR (333.B.2)		X	X		X								
ENGINES SUBJECT TO RULE 333 EMISSION LIMITS[a]													
3. TIERED COMPRESSION IGNITION ENGINES (333.B.3) - New Provision		X	X	X	X		X[b]	X	X	X			X[a]
4. EXISTING ENGINES PREVIOUSLY SUBJECT TO RULE 333 EMISSION LIMITS		X	X	X	X	X	X[a]			X		X	X[a]
5. EXISTING ENGINES BECOMING SUBJECT TO RULE 333 EMISSION LIMITS		X	X	X	X		X[a]		X		X[c]		X[a]
6. NEW ENGINES		X	X	X	X		X[a]	X	X		X[c]		X[a]

Table 6 is a summary of the proposed NOx emission limit changes.

[a] Emission limits for the following are being revised: Compression ignition engine NOx limits are being lowered slightly and new ROC and CO limits are being established for the first time. Lean-burn spark ignition engines rated in the 50 to less than 100 bhp range will have an increase in the NOx limit. Cyclically loaded rich-burn spark ignition engines will have an increased NOx limit. See Table 5 for additional details.
[b] For ARB or EPA Tiered compression ignitions, this requirement is triggered if a portable analyzer reading exceeds 560 part per million of NOx at 15% oxygen on a dry basis.
[c] ARB or EPA Tiered compression ignitions are exempt from the requirement for a Compliance Plan per Rule 333.B.3.

Table 6. SUMMARY OF THE PROPOSED NOx EMISSION LIMIT CHANGES

Engine Type	Category Number	Current NOx Limits		Proposed NOx Limits		Effect of Change
		% Control	ppmv[a]	% Control	ppmv[a]	
Rich-Burn Noncyclically-Loaded Spark Ignition Engines	1	90	50	90	50	None
Lean-Burn Noncyclically-Loaded Spark Ignition Engines in the 50 and greater to less than 100 bhp Range	2	80	125	-	200	Increased emission limit
Lean-Burn Noncyclically-Loaded Spark Ignition Engines Rated 100 bhp or Greater	3	80	125	80	125	None
Cyclically-Loaded Spark Ignition Engines	4	90	50	-	300	Increased emission limit
Compression Ignition Engines and Dual-Fuel Engines	5	-	797	40	700	Decreased emission limit

Categories 1 and 3 have no changes to the NOx emission limits; therefore, there will be no impacts to engines in those categories.

Categories 2 and 4 have increases to their emission limits. Without knowing if there are engines affected by these changes, these limit increases would seem to equate to higher emissions. However, the APCD inventory indicates that there are no currently permitted engines in Categories 2 or 4 that are subject to the Rule 333 NOx limits. Therefore, there will be no increases in NOx emissions from Category 2 and Category 4 engines as a result of increasing the Rule 333 emission limits.

Category 5 has a slight decrease in the NOx emission limit, but all engines currently subject to the emission limit are expected to comply with the lower limit by using low emission tuning techniques.

On existing engines becoming subject to Rule 333 emission limits due to the permit exemption change, staff anticipates that the six engines in the *50 and greater to less than 100 brake horsepower range* will be in Category 4. Further, these engines will comply with the emission limits by using the lean-burn tuning technique. The three offshore well drilling spark ignition engines becoming subject to the emission limits are expected to already comply with the Category 1 limits. The two offshore well drilling compression ignition engines becoming subject to the emission limits are expected to comply by retarding the fuel injection timing and/or performing engine maintenance, if these engine do not already meet the Category 5 limits. Other Category 5 engines are expected to either already comply with the stricter emission limits or will be able to with additional injection timing retard tuning.

[a] Dry, at 15% oxygen.

APCD Impacts

The influx of permit applications required by the Rule 202 engine exemption revision will create a short-term spike in workload. However, we will not be able to assess long-term impacts on workload until the applications have actually been submitted and we have issued the permits. Based on our emission inventory, we expect to receive 14 applications for 89 existing engines requiring permits due to the rule revision. The known engines that will require permits from the Rule 202 revision are identified in Appendix B.

In addition to the initial engine permits necessary because of the Rule 202 revision, there will be applications needed for the control techniques or enhanced control techniques to comply with the Rule 333 emission limits. Staff analysis indicates that there will be three applications for such control techniques on 10 engines. The engines requiring new or enhanced control techniques are listed in Appendix H, Table 1, Emission Reductions.

Adding engines to the population of engines subject to Rule 333 and enhancing the compliance requirements for engines subject to the emission limits will cause APCD workload impacts. Staff anticipates that 19 sources will need to submit revised Inspection and Maintenance Plans and Compliance Plans. Three stationary sources (01063, 01153, and 08001) will need to submit these plans for 11 engines that are becoming subject to Rule 333 emission limits for the first time (as shown in Appendix C or Appendix L, Table 3).

There will also be impacts due to additional engines needing to be inspected and source tested. Engines located offshore will require additional compliance logistics. Based on the APCD inventory, five of the engines becoming subject to the Rule 333 source testing requirements are located offshore. The other six engines are located at the Barham Ranch site (Northern Santa Barbara County).

Staff may encounter additional permit exemption requests that do not relate to Rule 202.F.1.f. For example, sources may apply for the new specialty equipment exemption, the revised gas turbine exemption, or the new winery exemption. Staff expects that the applications for the specialty equipment exemption will occur infrequently due to the availability of equipment registered in the portable equipment registration program. Further, the number of sources seeking the revised gas turbine exemption or the winery exemption is anticipated to be in the one to three range.

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Appendix M
Santa Barbara County
Overviews of Proposed Amended Rule 333 Provisions on Applicability; Engine Identification, Meters, and Continuous Monitoring Systems; Emission Limits; and Compliance Schedule

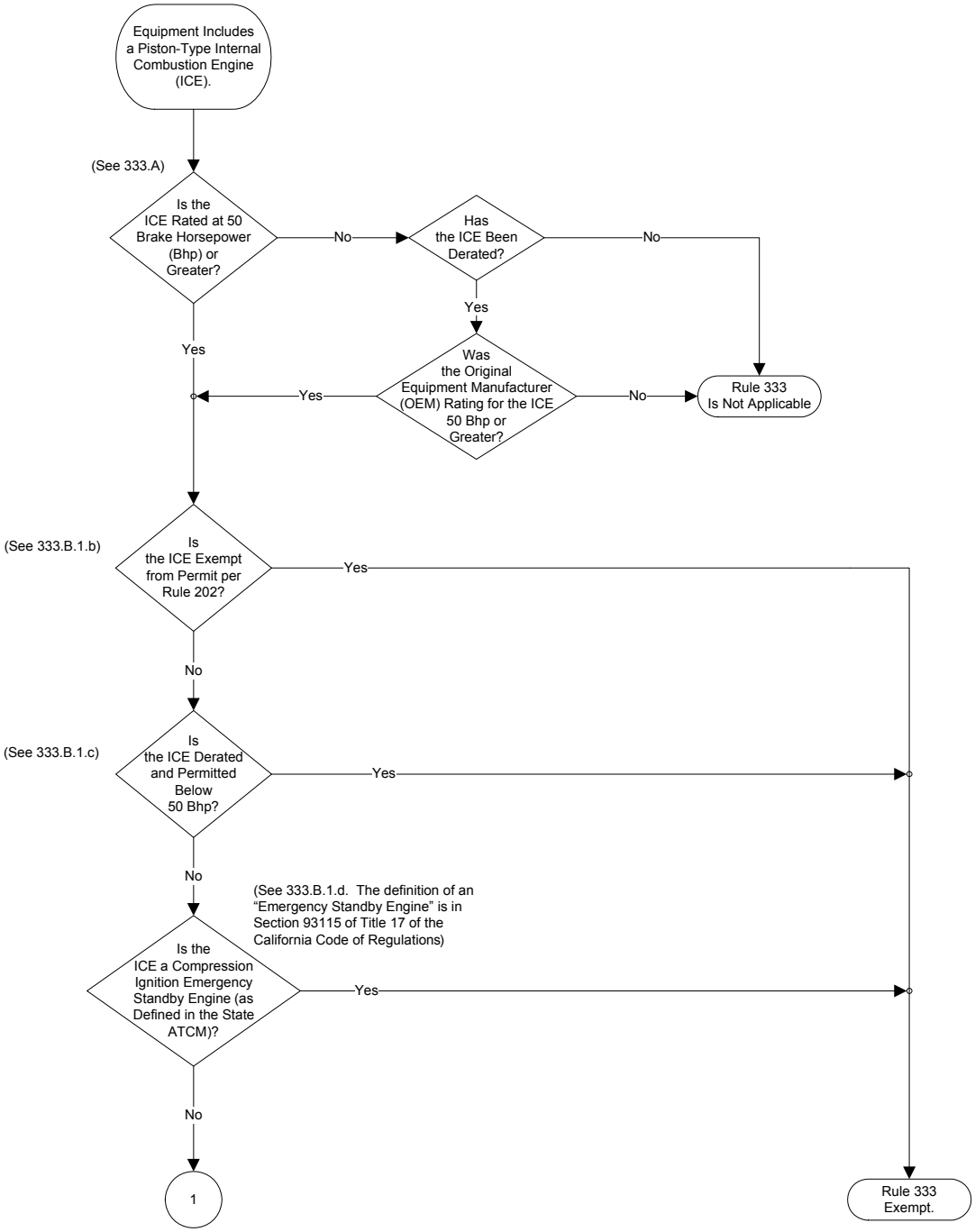

Figure 1. Rule 333 Applicability and Exemption Provisions.[1]

1. These flowcharts are presented on an informational basis to assist the reader in understanding the requirements. If there is any conflict between the flowcharts and the rule, rule text takes precedent.

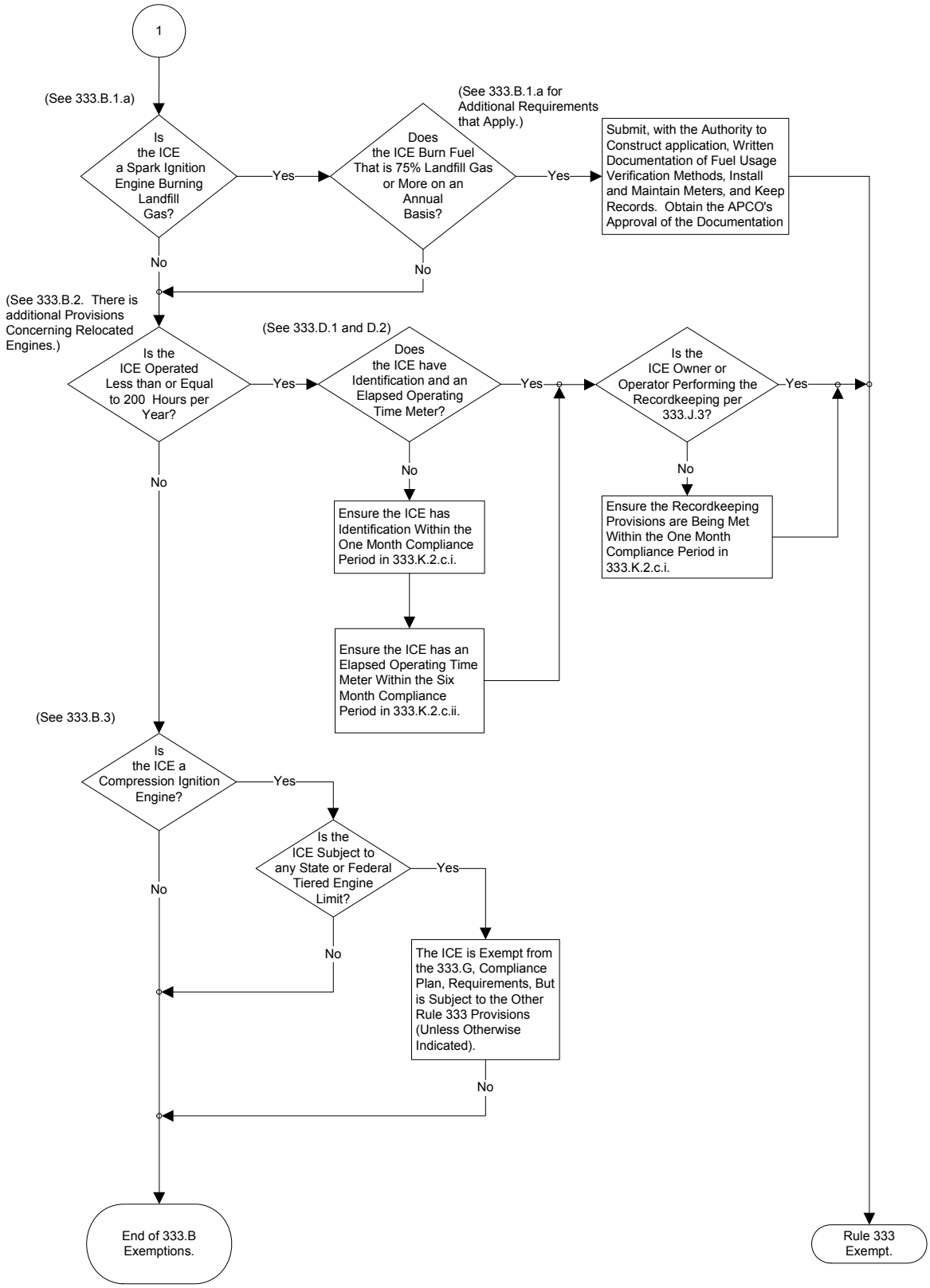

Figure 1. (cont.)[1]

1. These flowcharts are presented on an informational basis to assist the reader in understanding the requirements. If there is any conflict between the flowcharts and the rule, rule text takes precedent.

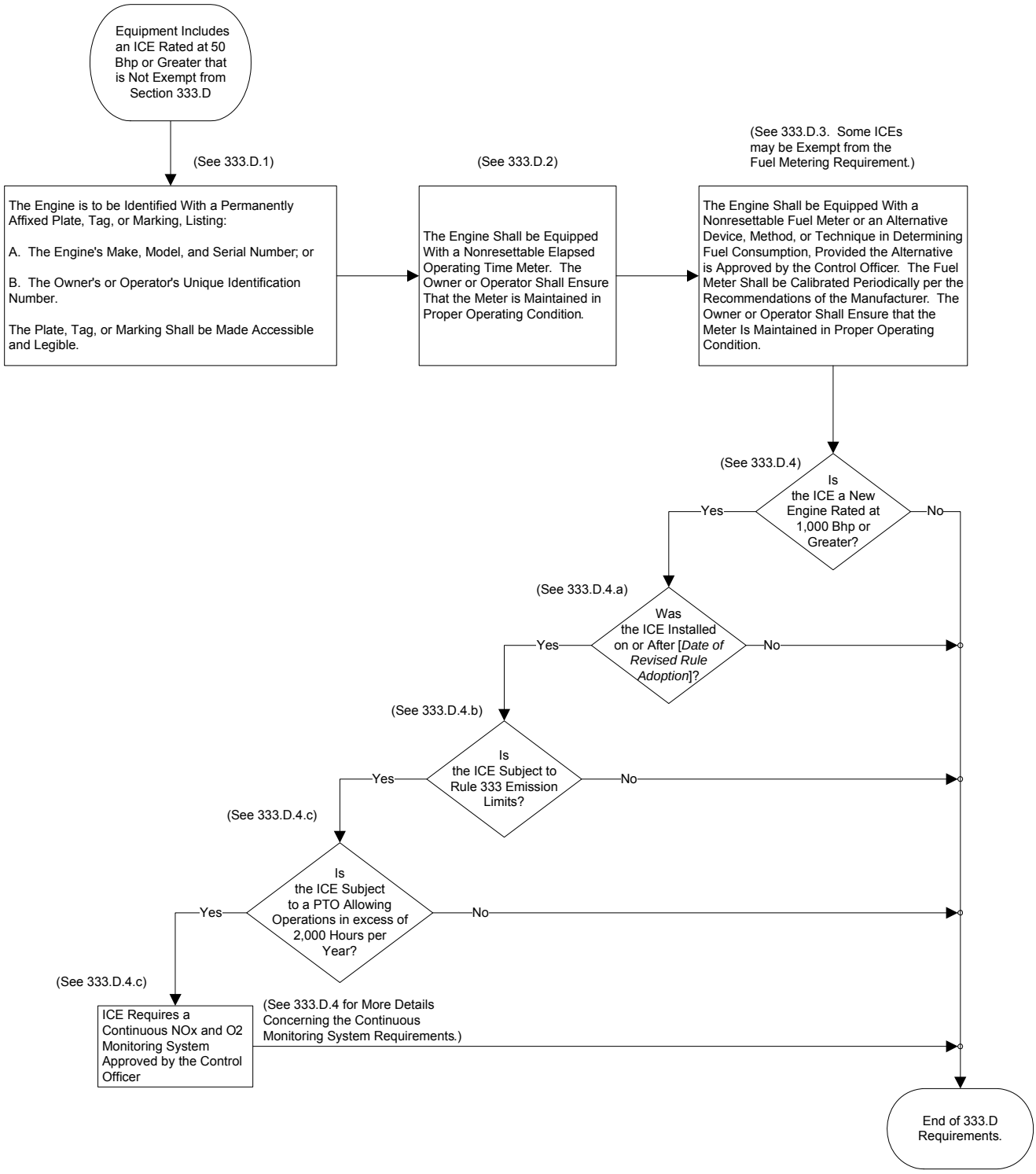

Figure 2. Rule 333 Provisions on Engine Identification, Meters, and Continuous Monitoring Systems.[1]

1. These flowcharts are presented on an informational basis to assist the reader in understanding the requirements. If there is any conflict between the flowcharts and the rule, rule text takes precedent.

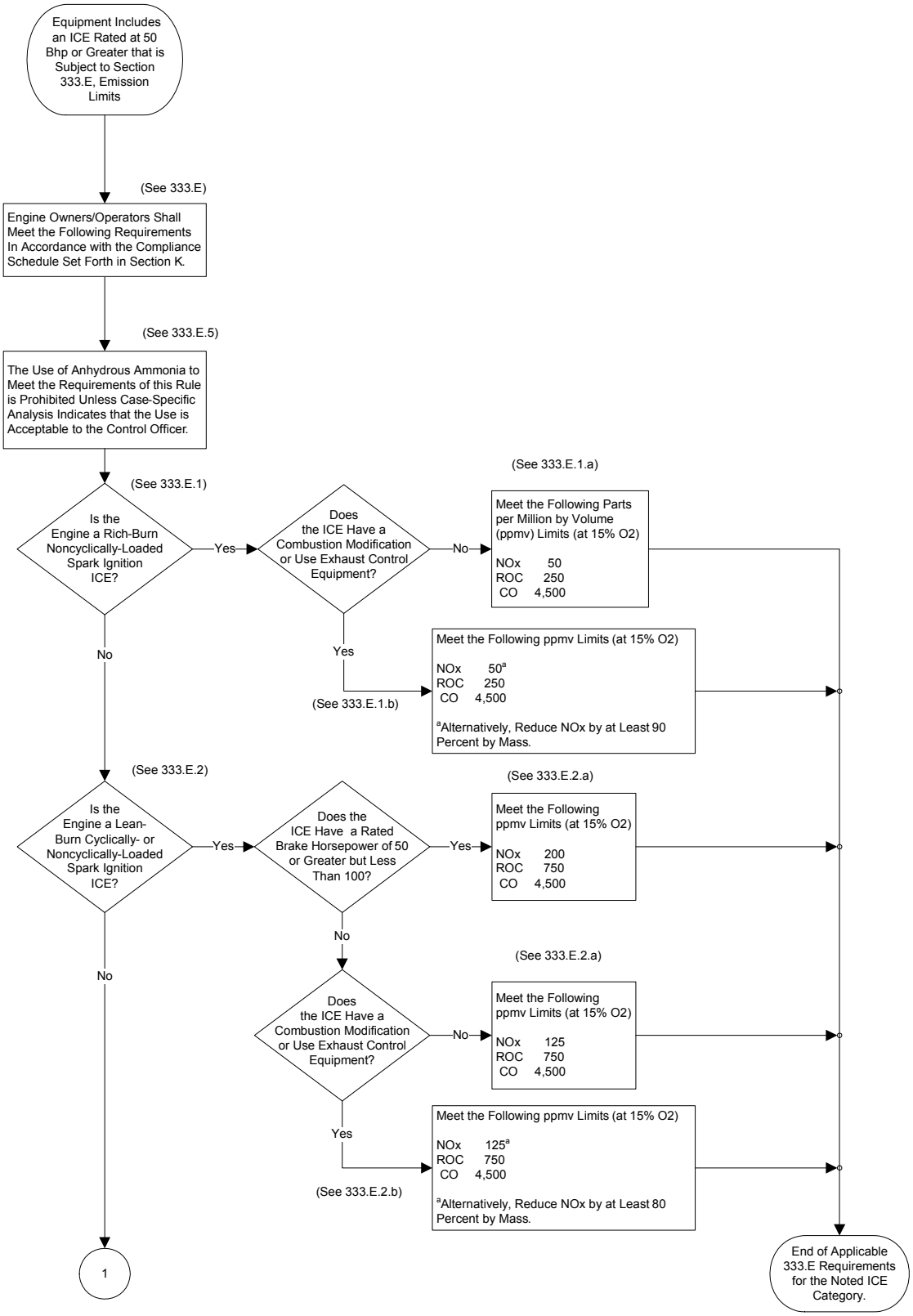

Figure 3. Rule 333 Emission Limits.[1]

1. These flowcharts are presented on an informational basis to assist the reader in understanding the requirements. If there is any conflict between the flowcharts and the rule, rule text takes precedent.

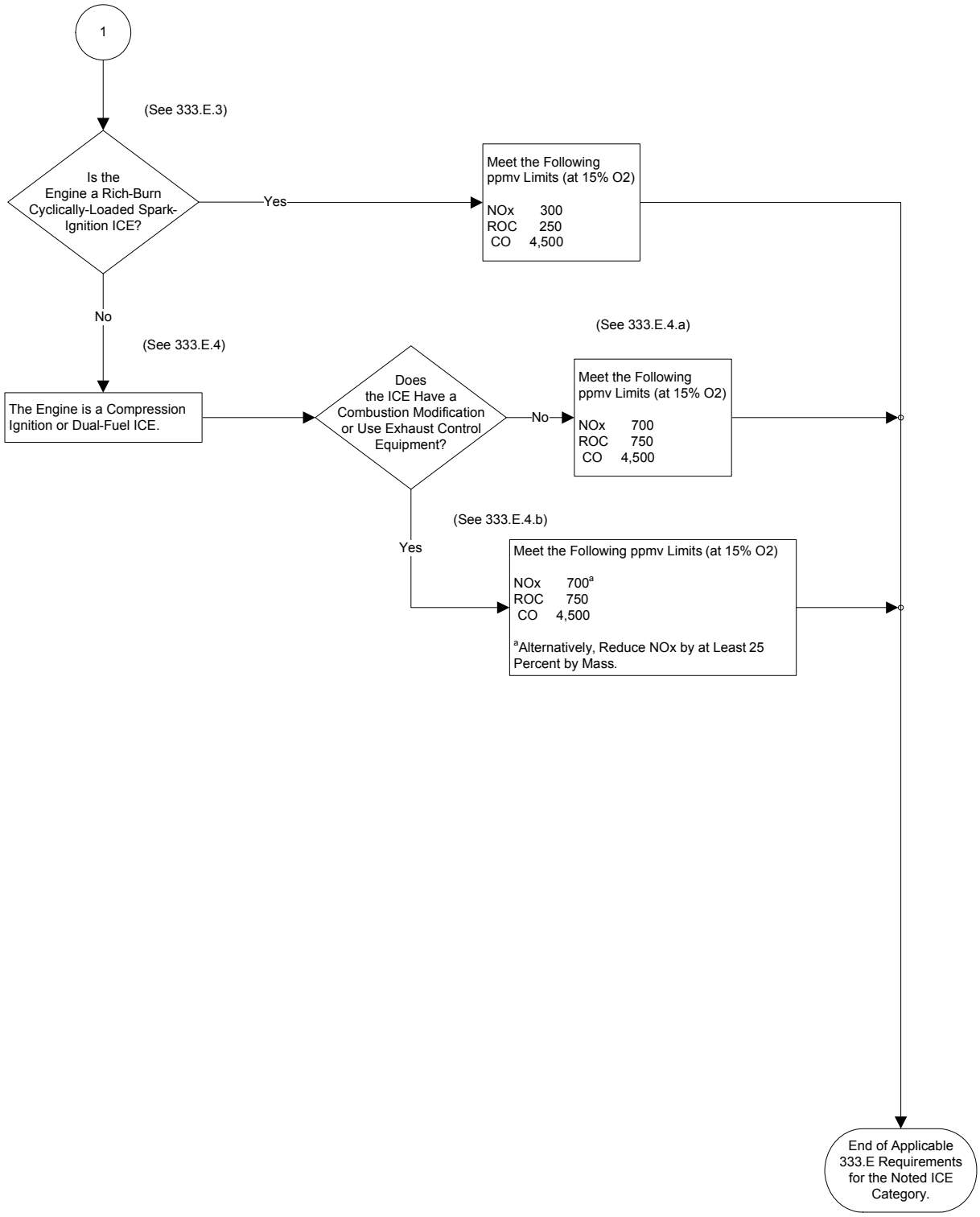

Figure 3. (cont.)[1]

1. These flowcharts are presented on an informational basis to assist the reader in understanding the requirements. If there is any conflict between the flowcharts and the rule, rule text takes precedent.

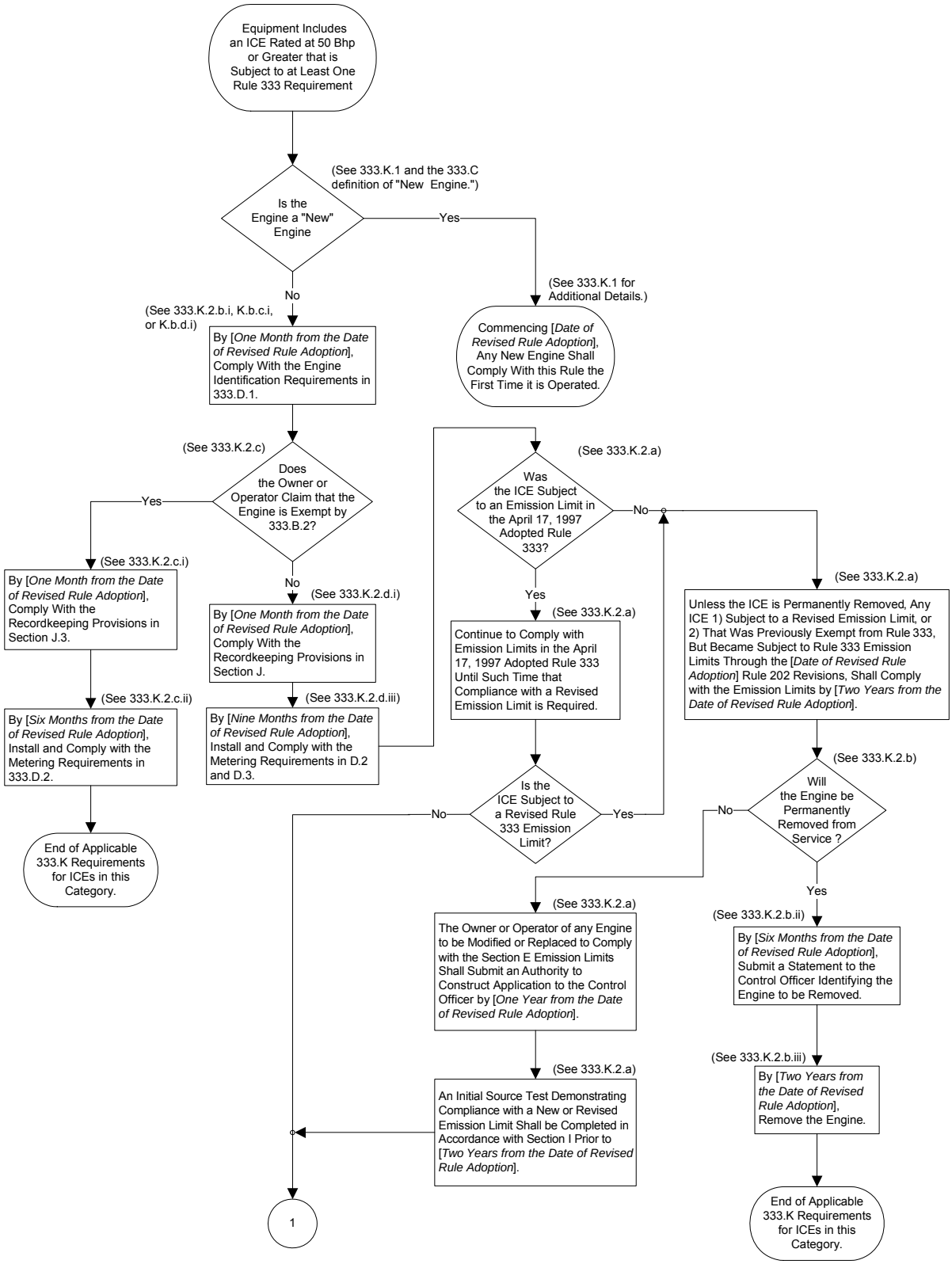

Figure 4. Rule 333 Compliance Schedule Provisions.[1]

1. These flowcharts are presented on an informational basis to assist the reader in understanding the requirements. If there is any conflict between the flowcharts and the rule, rule text takes precedent.

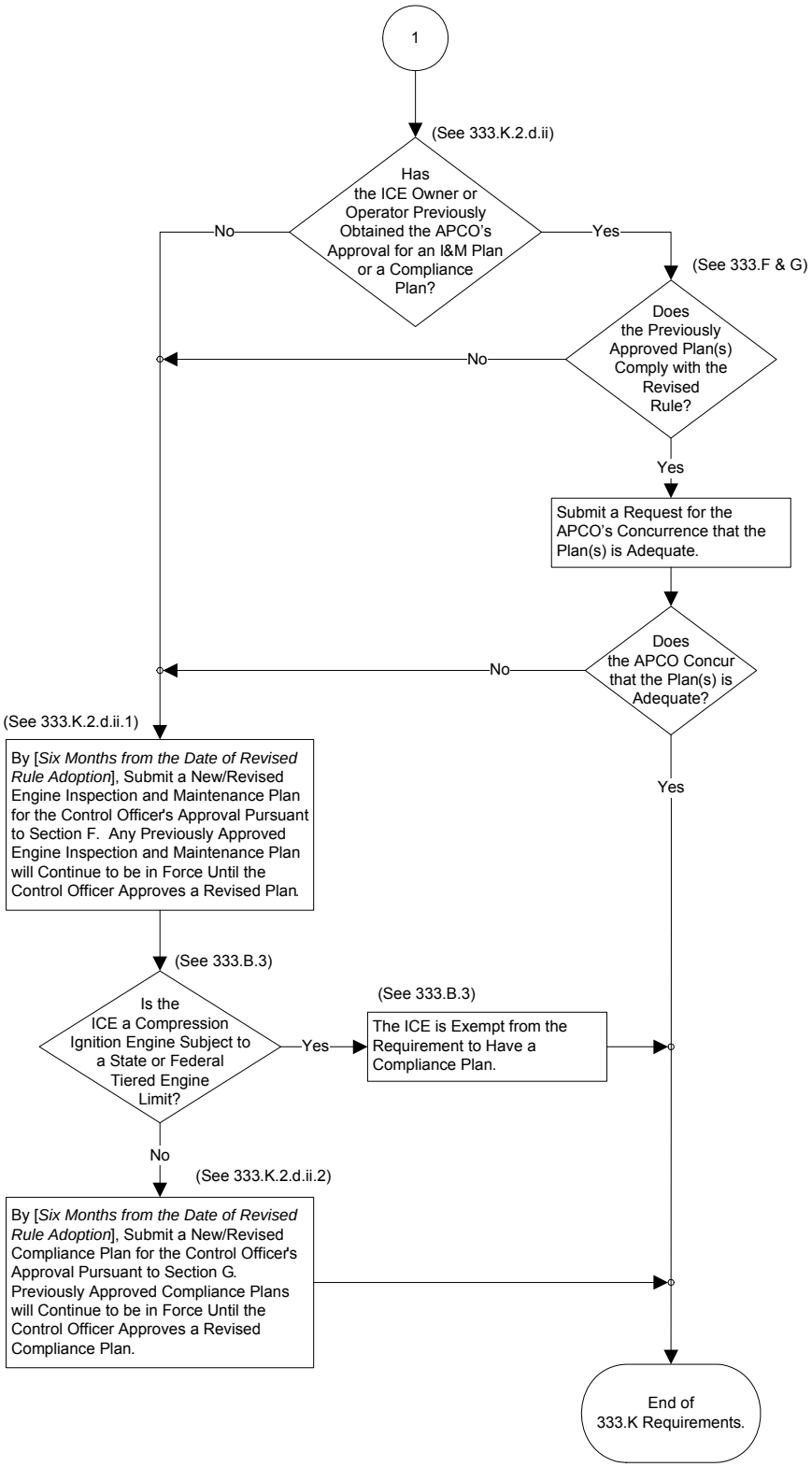

Figure 4. (cont.)[1]

1. These flowcharts are presented on an informational basis to assist the reader in understanding the requirements. If there is any conflict between the flowcharts and the rule, rule text takes precedent.

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Appendix N
Santa Barbara County
Frequently Asked Questions (Ver. 1.5)[a]

Frequently Asked Questions
Rule 202 - Exceptions to Rule 201

Temporary Equipment [Existing FAQ on the SBCAPCD Web Site]

Q: *Please clarify the temporary equipment exemption. What is the distinction between the 60 day period limit and the consecutive 12 month period? For adding up the emissions for a source to comply with the 1 ton limit, do we total all the temporary equipment emissions or do we treat each emissions unit separately with its own emission limit?*

A: The 60 day period applies to individual emission units and limits any one unit from operating under the exemption for any time period exceeding 60 days. This 60 day period must be within a consecutive time frame and is not intended to allow for sporadic use through out the year. The 12 month consecutive time period ensures that the intent of the exemption is maintained by disallowing use of the same emission unit for a 120 day period if the calendar year basis was used. The 1 ton limit applies all emission units within a consecutive 12 month period.

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Temporary Equipment – Short Term Use [Existing FAQ on the SBCAPCD Web Site]

Q: *Does the Temporary Equipment exemption (Section D.5) include short term operation of permitted equipment in a way that is not permitted, say a short term trial of equipment limits, or a "fault finding" search to determine why equipment can't quite meet BACT requirements under certain conditions?*

A: No. The exemption is for new equipment only. Testing, shake-down and debugging activities for compliance with BACT standards is why the APCD has a Source Compliance Demonstration Period during the construction phase (i.e., with ATC permit issuance). Once the source has a Permit to Operate, they may seek administrative relief via APCD Regulation V (Variances).

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[a] Upon adoption of the proposed amended Rule 202, the APCD intends to place these proposed FAQs on the SBCAPCD Web Page (i.e., the Web Page at: http://www.sbcapcd.org/eng/nsr/faq_202.htm#201-1). To provide a comprehensive overview of the existing and proposed FAQs, this document includes the existing FAQs that interrelate to proposed new FAQs.

Temporary Equipment – Examples [Existing FAQ on the SBCAPCD Web Site]

Q: *Examples of temporary activities that qualify for the temporary equipment exemption (202.D.5) include, but are not limited to:*

A:

- ICE's from cranes, welders, jack hammers, etc. used during the demolition of a source or part of a source.
- Replacement or use of equipment during a breakdown situation.
- Demonstration equipment being used to determine feasibility (not lab test equipment).
- Any short-term, one-time project that requires equipment that pollutes is eligible if it meets the 1 ton criteria of all affected pollutants. The Portable Equipment Registration Rule is intended to handle portable equipment that emits more and is used for longer periods of time.
- While written notification is required, the project may commence as soon as notification is made without waiting for approval from the APCD. However, if a project commences with equipment that is later found not eligible for the exemption, the commencement will constitute a violation of the APCD's Rules and Regulations

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Temporary Equipment – Method for Determination Compliance with the 60-day and 1 ton per 12 Months Provision

[Reference Proposed Amended Rule 202.D.5]

Q: *Can the APCD clarify how the 60-day provision works in practice? That is, how compliance with the rule's 60 days and 1 ton per 12 months provisions are determined.*

A: The 60 day time period is a continuous period starting the first day the equipment is used. Once started, the 60 day period is not stopped and re-started. The equipment may be used any time within the 60 day period and may leave and return to the site. Compliance with 60 day requirement is based on the start date. Compliance with the 1 ton requirement is based on a compilation of the consecutive 12-month emissions as provided in the company's written exemption requests. Multiple temporary projects are allowable within the consecutive 12-month period provided 1) the aggregate 1-ton threshold is not exceeded, 2) the equipment is not used for more than 1 project, and 3) each individual project is not used for more than 60 consecutive days.

▲TOP

Equipment "Stacking" [Reference Proposed Amended Rule 202.D.15]

Q1: *How is it determined that equipment is "stacked" or "used in the same process"?*

A1: The APCD uses the engineering basis and system demands to determine that equipment is "stacked" or "used in the same process." Such analysis will involve looking at the equipment's or system's maximum energy needs or demands under a worst-case scenario.

- Example 1: A design basis is such that ten 1 million British thermal units per hour (MMBtu/hr) boilers can be required at any one time. For this case, we would consider that equivalent to a single 10 MMBtu/hr boiler.
- Example 2: A source installs two 4 MMBtu/hr boilers that are fired exclusively on natural gas. One is for primary use and one is standby. The design heat demand is 4 MMBtu/hr. Thus, the boilers in this configuration are not considered to be used in the same process (stacking).
- Example 3: An electric generator has two 30 brake horsepower internal combustion engines that drive a single shaft concurrently. The power demands are such that both engines typically need to run simultaneously. The configuration is considered to be used in the same process and a total rating of 60 brake horsepower would be used for determining permitting applicability (but Rule 333 would not be

applicable).

Q2: *A source is not sure if its existing equipment configuration constitutes "equipment stacking" and may require permitting. How can the source get an SBCAPCD determination about the configuration and its exemption/permitting status?*

A2: The source should complete an APCD Form - 38, "Request for Written Determination of Permit Exemption," and submit it along with the fee.

Q3: *Will stacked equipment be subject to the requirements of the prohibitory rules and other regulations?*

A3: Stacked equipment is subject to NSR provisions (e.g., BACT) for all units as one. For control measures such as Rule 342 and Rule 333, each unit is individually assessed for rule applicability.

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Construction [Existing FAQ on the SBCAPCD Web Site]

Q: *In Section F.3 (IC Engines), does the 25 ton limit include fugitive dust emissions associated with the construction operation?*

A: Yes. The 25 ton threshold applies to all pollutants emitted during the construction process. Also, the 25 ton threshold applies to each pollutant, and is not aggregated.

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Construction – Projected Actual Emissions and Offsets

[Reference Proposed Amended Rule 202.D.16]

Q1: *How are fugitive dust emissions calculated when mitigation techniques are used?*

A1: The potential to emit is determined taking into account the dust mitigation techniques. These assessments are done on a case-by-case basis using the best available emission calculations tools.

Q2: *At what point would the 25 tons per year offset requirement for construction equipment be necessary?*

A2: Offsets are required prior to exceeding the 25 tpy projected actual emissions threshold. That is why the term "projected" is used.

Q3: *There is a concern that an interpretation might be made that includes all construction projects within a stationary source for the 25 ton total. For example, industry does not believe that a water line project and/or construction of a building within a large stationary source, not requiring an ATC, are subject to this 25 ton cap. This is analogous with other construction projects occurring in Santa Barbara County (e.g., Housing developments, large parking structures, or UCSB construction projects).*

A3: The method for determining that a construction activity may be subject to offsets under the proposed new Rule 202.D.16 provision will be the same method used for the current Rule 202.F.3 provision. Only construction projects involving ATC permits are subject to this requirement.

Q4: *Can the offset provisions be applied on a project or facility basis?*

A4: No. Current Rule 202.F.3 specifies the requirement is for construction equipment used to construct a stationary source that requires an ATC. The proposed new Rule 202.D.16 text is essentially the same as current Rule 202.F.3. Stationary sources may opt to tally the total stationary source construction emissions on a project or facility basis, but the offset requirement is triggered on a stationary source basis; not on a project or facility basis.

Q5: *A person proposes to build a new stationary source that requires an Authority to Construct. The construction emissions have a projected actual NOx emission rate in excess of 25 tons per year and the post-construction stationary source will have a net emissions increase of 40 tons of NOx per year. What are the emission offset implications for such a project?*

A5: Per Rule 202.D.16, offsets are required for the project because the actual projected emission rate is in excess of 25 tons per year. The ATC permit will document the source of emission reduction credits to be used to offset this construction emission offset liability. For the operational phase, offsets are triggered per Rule 802.E. Emission reduction credits applied to the construction phase offset liability may also be used to offset the operational phase liability (this assumes that there are no restrictions on the use of the ERCs and that the construction phase was completed).

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Construction Engines [Reference PAR 202.D.16 and Current Rule 202.F.2]

Q: *Who is responsible to get the permit or a PERP for a construction engine, the contractor or the source?*

A: Ultimately the stationary source will be held accountable for the permitting or registering in the PERP of construction engines. The APCD recommends that sources put something in their request for bids or contracts requiring that all construction engines be registered in the PERP or be permitted.

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Derated Engines - Permitting Requirements

[Reference Proposed Amended Rule 202.F.1.e - g]

Q: *Will my derated engine need to be permitted?*

A: Yes, unless the engine rated brake horsepower before the derating was such that the engine would not require a permit.

- Example 1: A diesel engine with an original manufacturer's nameplate rating of 48 brake horsepower is derated to 40 brake horsepower. Under Rule 202.F.1.e, the engine with the original manufacturer's nameplate rating of 48 brake horsepower was exempt. Thus, the derated engine is exempt.

- Example 2: A spark ignition engine with an original manufacturer's nameplate rating of 75 brake horsepower is derated to 40 brake horsepower. Under proposed amended Rule 202.F.1.f, the engine had an original rating of 75 brake horsepower, which is above the 50 or greater brake horsepower permitting threshold. Thus, the derated engine requires a Permit to Operate (PTO).†

- EXAMPLE 3: A spark ignition engine with an original manufacturer's nameplate rating of 45 brake horsepower is derated to 25 brake horsepower and it is located at a source that requires engines in the > 20 to < 50 brake horsepower to be permitted. Under proposed amended Rule 202.F.1.f, the engine with an original rating of 45 brake horsepower is not exempt. Thus, the derated engine requires a PTO.†

- EXAMPLE 4: A source has eleven spark ignition engines only. These engines are derated. Each of the engine original equipment manufacturer (OEM) nameplate ratings (before derating) is 40 brake horsepower. Thus, a tally of the OEM nameplate ratings for these engines equals 440 brake horsepower (11 engines times 40 brake horsepower/engine). Since the aggregate exceeds 400 brake horsepower, all engines need a permit. The owner or operator cannot permit just 2 engines derated to 10 brake horsepower so the aggregate becomes 380 [(2 engines times 10 brake horsepower/engine) + (9 engines times 40 brake horsepower/engine)] and get an exemption for the other 9 engines. Once the requirement to permit all engines in the > 20 to < 50 brake horsepower range has been triggered, they shall not become exempt by the application of the derated brake horsepower ratings. Ratings of engines permanently removed will be excluded from new aggregate totals assessed pursuant to Authority to Construct modifications. †

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† Figure 1 (available here) shows an overview of the Rule 202.F.1.f permit exemption provisions.

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Derated Engines - Certifications and Enforceable Deratings

[Reference Proposed Amended Rule 202.F.1.e - g]

Q1: *My derated engines have been previously listed on a SBCAPCD PTO. Will I need to have additional derating certifications or power rating tests performed on my engine under the revised rules?*

A1: If the engine deratings are (1) not enforceable and (2) not APCD-approved on a Permit to Operate, then submittal of the documentation may be necessary. It is suggested that sources with engines in this category work closely with the Engineering & Compliance Division staff to determine what information needs to be submitted and what information is already on file with the APCD.

Q2: *If the engine manufacturer re-issues an engine nameplate to reflect the engine's new continuous brake horsepower rating with an orifice plate or some other kind of physical limiting method, can the rating on the re-issued nameplate be considered to be the engine's rated brake horsepower?*

A2: No, the APCD will use the engine manufacturer's originally issued nameplate as the engine's brake horsepower rating, unless the APCD issues a PTO for the derated engine. For the purposes of Rule 333 applicability, the APCD will consider an engine that has an enforceable derating, that has been certified, and is subject to a PTO to have a modified rated brake horsepower based on the derated brake horsepower figure.

Q3: *My company has several unpermitted derated engines. Will I need to submit certification documentation to substantiate the engine deratings?*

A3: The answer is "Yes." If a permit is required for the ICEs, then certification documentation will need to be submitted.

The APCD needs to issue PTOs for derated engines that would otherwise require a permit to ensure that the engine deratings are enforceable and maintained. The derating certification data needs to be submitted with the PTO application. It is suggested that sources with engines in this category work closely with the Engineering & Compliance Division staff to determine acceptable material that needs to be submitted with the application.

Q4: *My engine has an orifice plate inserted between the carburetor and the engine's intake manifold. There is a tab on the orifice plate that clearly shows the size of the orifice. Is this sufficient to show my engine is properly derated?*

A4: Assuming that the engine was derated and certified as derated by procedures approved by the APCD and it is subject to a permit, it is not enough that the orifice plate's tab is stamped correctly. We have physically checked orifice plates and found that they can deteriorate overtime. Thus, it is necessary that the orifice plate actually be in compliance with the specifications as well as being marked with its appropriate size.

Q5: *I believe my company derated engines from 75 brake horsepower to < 50 brake horsepower. But, there are no permits for them to reflect their deratings because they have always been exempt under the 500 brake horsepower exemption provision. How do I obtain a concurrence from the APCD that these engines are derated?*

A5: These engines will require permits under the proposed revised Rule 202. Information on the deratings should be submitted with the applications for Permit to Operate. Depending on the method of derating and past derating certification documentation, additional analysis may be required.

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Solvent Wipe Cleaning Exemption Recordkeeping [Reference Current Rule 202.U.3]

Q: *As an operator of a large complex with several stationary sources and several facilities, am I permitted to track solvent use on a facility basis?*

A: Yes, as long as each facility solvent use is totaled for the stationary source for determining compliance with the Rule 202.U thresholds. Rule 202.U has an overall 10 tons per year threshold. Rule 202.U.2 has a solvent tank area aggregate threshold of 10 square feet for tanks with less than 1 square foot of area. And, Rule 202.U.3 has a wipe cleaning threshold of 55 gallons per year.

Designation of facilities and facility numbers are a construct of the APCD permitting process. Facilities are a subset of stationary sources. Thus, if an operator of a large complex desired to track solvent usage on a facility basis, the APCD would not have a concern, provided the operator properly aggregates all of the facility solvent usage and tank area data within the stationary source and is able to provide the stationary source data in support of exemption claims.

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Engine Electronic Management Fuel Metering

Q: *Will the APCD accept onboard electronic engine fuel metering systems?*

A: Yes, on an engine model-by-model basis and if the engine is set up to display the totalized fuel reading without the need to have an engine technician on site to retrieve the data. Monthly fuel readings are still required to be logged. For each engine fuel metering system, the APCD will require an initial validation test using an external calibrated fuel meter as well as a fuel use monitoring plan for the permit.

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Various Location Equipment Exemption

Q: *What is the basis for the various equipment exemption under Rule 202.D.17?*

A: This new exemption was added to allow for the use of permitted “various locations” equipment at existing stationary sources where the equipment is not owned by the stationary source using the equipment. The intent of this exemption is to allow for the use of equipment for repair or maintenance related activities without the need for the stationary source owner or operator to comply with the New Source Review regulations. The equipment owner or operator will have a District Permit to Operate that specifically states that the equipment can be used at various locations and has conditions related to District notification and other restrictions of use. The type of activities envisioned for this exemption primarily includes tank degassing equipment and tank bottoms dewatering equipment.

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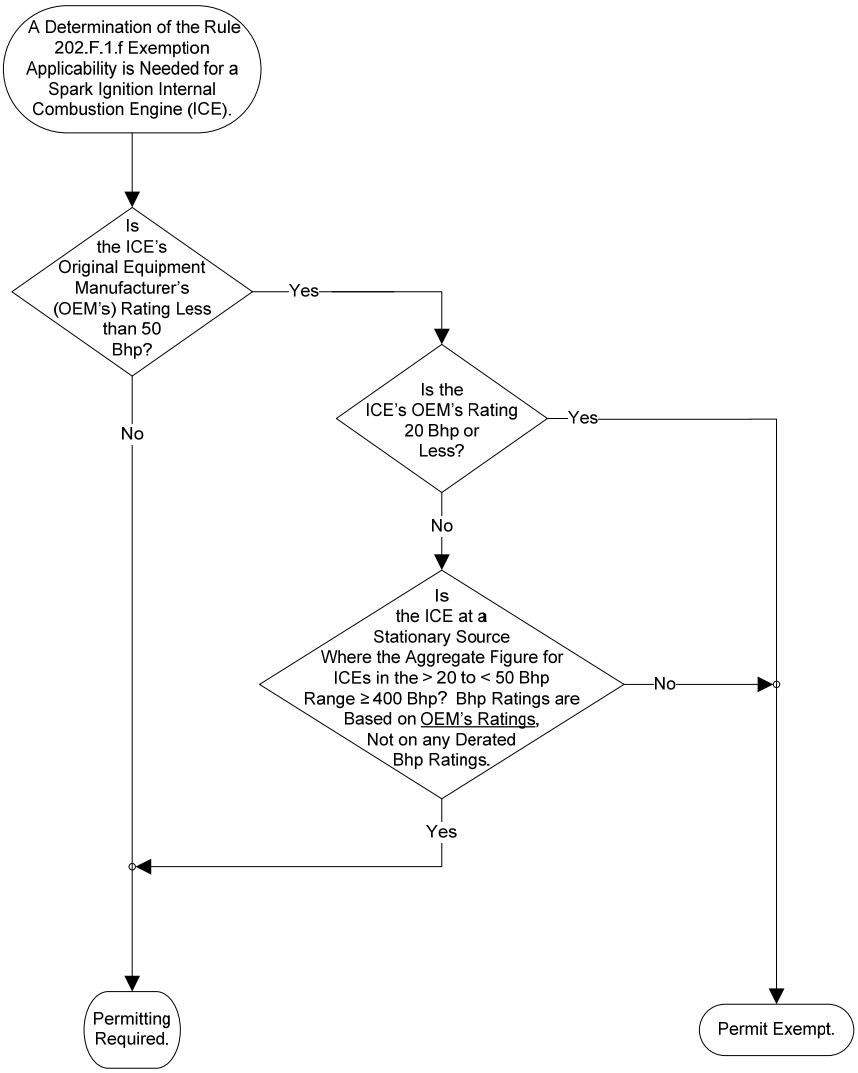

Figure 1. Overview of the Rule 202.F.1.f permit exemption provisions for spark ignition internal combustion engines.[1]

1. These flowcharts are presented on an informational basis to assist the reader in understanding the requirements. If there is any conflict between the flowcharts and the rule, rule text takes precedent.

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