

Agenda Date: June 19, 2008 Agenda Placement: Regular Estimated Time: 15 min Continued Item: No

# **Board Agenda Item**

TO: Air Pollution Control District Board

FROM: Terry Dressler, Air Pollution Control Officer

CONTACT: Douglas Grapple, 961-8883

SUBJECT: Revisions to Rules on Engine Requirements and Permitting Provisions

### **RECOMMENDATION:**

#### That the Board:

- A. Hold a public hearing to receive testimony on proposed amended Rules 102 (Definitions), 201 (Permits Required), 202 (Exemptions to Rule 201), and 333 (Control of Emissions from Reciprocating Internal Combustion Engines) and the Initial Study/Proposed Negative Declaration for Revisions to Rule 333, Rule 102, Rule 201, and Rule 202.
- B. Approve the Resolution attached to this Board Letter. Approval of the resolution will result in the following actions:
  - 1. <u>CEQA Findings</u>: Adopt the CEQA findings (Attachment 1) pursuant to the California Environmental Quality Act (CEQA) and the CEQA guidelines.
  - 2. <u>Rule Findings</u>: Adopt the associated rule findings (Attachment 2) in support of the proposed rule revisions pursuant to Health and Safety Code Section 40727 regarding necessity, authority, clarity, consistency, nonduplication, and reference. The rule findings also acknowledge public comments received on the proposed rule revisions (see Attachments 3 and 4) and adopt the Response to Comments (see Attachments 3 and 5) as findings of the Board.
  - 3. Rule Adoption and Amendments: Adopt proposed amended rules (Attachment 6).

### **EXECUTIVE SUMMARY:**

This rulemaking effort addresses all suggestions from the California Air Resources Board and the U.S. Environmental Protection Agency regarding permitting and control of internal combustion engines. The revisions also incorporate requested changes to permit exemptions and other rule changes to clarify the requirements.

The enclosed Staff Report provides more details on this rulemaking project.

# **DISCUSSION**

# Background

The Santa Barbara County Air Pollution Control District (APCD) is proposing to modify two rules (Rules 201 and 202) that implement the APCD permitting process. Regulation II (Permits) and VIII (New Source Review) constitute the basis for the APCD permitting program.

The APCD is also proposing to revise Rule 333, which implements operating and emission control requirements for piston-type internal combustion engines and Rule 102 (Definitions).

# **Objectives**

Staff is proposing to modify the APCD's permitting rules and the engine prohibitory rule in order to accomplish the following basic objectives:

- Addresses all ARB-identified suggestions and all EPA-identified deficiencies regarding the permitting and control of internal combustion engines
- Fulfill a commitment in the 2007 Clean Air Plan on revising the control measure for internal combustion engines
- Streamline the permitting process to reduce the burden on the regulated community while not compromising air quality

# Implications to the Regulated Community:

About ninety currently permit-exempt engines will become subject to permitting and about ten currently permitted engines will become exempt. Eight of the engines becoming subject to permitting for the first time and two currently permitted engines will require modifications to comply with Rule 333 emissions limits. The owners or operators of the currently permit-exempt engines will have ninety days from the date of rule adoption to submit the Permit to Operate applications. For engines requiring modification to comply with the Rule 333 limits, the owners or operators will have one year from the date of rule adoption to submit an Authority to Construct application.

Other impacts to the owners and operators of engines include costs associated with source testing, monitoring, inspection and maintenance plans, compliance plans, recordkeeping, and fees.

The addition of new permit exemptions and exemptions from Regulation VIII for temporary projects with modest emissions will result in less permitting and emissions offset requirements, which should facilitate the projects.

# **Emission Reductions and Cost Effectiveness:**

The proposed revisions to Rules 202 and 333 pertaining to internal combustion engines are expected to result in 6.5 tons per year of oxides of nitrogen (NOx) reductions and a slight (0.03 tons per year) increase in reactive organic compound emissions. The cost-effectiveness associated with revising Rule 333 ranges from \$1,550 to \$11,532 per ton of NOx reduced. The incremental cost-effectiveness is assessed to be \$479 per ton of NOx reduced.

# <u>Implications to the APCD Budget</u>:

The APCD anticipates the current staffing levels will handle the new Permit to Operate applications and modification applications required by the rule revisions. Also, the current staffing levels should be sufficient for any increase in inspections and the review of the new and revised compliance plans, inspection and maintenance plans, source testing plans, and source test reports.

# Public Review:

The APCD conducted two public workshops (December 8, 2005 and February 13, 2008), a general stakeholders' meeting (January 25, 2007) and several smaller stakeholders' meetings (2006 – 2007). On April 23, 2008, the Community Advisory Council passed a motion to recommend that the Board adopt the proposed amended rules.

# California Environmental Quality Act (CEQA):

The APCD has prepared a CEQA document entitled, "Proposed Negative Declaration for Revisions to Rule 333, Rule 201 and Rule 202." A public notice on the availability of this document was published on May 11.

# Concurrences:

County Counsel has reviewed this Board Letter and its attachments and approves them as to form.

# SPECIAL INSTRUCTIONS:

After adoption by the Board, please have the Board Chair sign the attached resolution and return a copy along with a copy of the minute order to Douglas Grapple of the Air Pollution Control District.

# Attachments

Resolution

Attachment 1: CEQA Findings Attachment 2: Rule Findings

Attachment 3: Public Comments and Response to Public Comments (January 4, 2006 to March 10,

2008)

Attachment 4: Public Comments (March 11, 2008 to June 10, 2008)

Attachment 5: Response to Public Comments (March 11, 2008 to June 10, 2008)

Attachment 6: Rule Amendments

Attachment 7: Initial Study/Proposed Negative Declaration for Revisions to APCD Rule 333,

Rule 102, Rule 201 and Rule 202

# Enclosure

Staff Report

# **BOARD RESOLUTION**

PROPOSED AMENDED RULE 102 (DEFINITIONS)

PROPOSED AMENDED RULE 201 (PERMITS REQUIRED)

PROPOSED AMENDED RULE 202 (EXEMPTIONS TO RULE 201)

PROPOSED AMENDED RULE 333 (CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES)

June 19, 2008

Santa Barbara County Air Pollution Control District

260 North San Antonio Road, Suite A Santa Barbara, California 93110

(805) 961-8800

# RESOLUTION OF THE AIR POLLUTION CONTROL DISTRICT BOARD OF THE COUNTY OF

SANTA BARBARA, STATE OF CALIFORNIA

In the Matter of	)	<b>APCD Resolution No.</b>
	)	
Adopting Amended Rules 102, 201, 202 and	)	
333	)	
	)	

### RECITALS

- The Air Pollution Control District Board of the County of Santa Barbara
   ("Board") is authorized to adopt, amend, or repeal rules and regulations pursuant to Health and
   Safety Code section 40725 et seq.
- 2. Pursuant to Health and Safety Code section 40001, the Board is required to adopt and enforce rules and regulations to achieve and maintain the state and federal ambient air quality standards.
- 3. The Board has determined that a need exists to adopt amendments to Rules 102, 201, 202, and 333. The amendments to Rule 102 provide new and amended definitions that apply to the entire rule book. The Rule 201.D.2 provisions on permitting pile driving, cablelaying, and derrick barges are being modified and relocated into Rule 202. Other Rule 202 amendments include the deletion of the construction and well drilling engine exemptions with the addition of a specialty equipment exemption and several other provisions to allow modest equipment use without permits or the application of the Regulation VIII, New Source Review provisions. Also, the engine permitting requirements are being changed for consistency with the

Rule 333 applicability provisions and the Regulation VIII, New Source Review provisions. Rule 333 revisions are being made in response to ARB and EPA concerns. The proposed amendments to the engine permitting and operating requirements are consistent with changes to emission control measures (N-IC-1 and N-IC-3) outlined in the 2007 Clean Air Plan.

# NOW, THEREFORE, IT IS HEREBY RESOLVED THAT:

- 1) This Board has held a hearing and accepted public comments in accordance with the requirements of Health and Safety Code section 40725 *et seg*.
- 2) The California Environmental Quality Act ("CEQA") findings set forth in Attachment 1 of the Board Package dated June 19, 2008 (herein after "Board Package") are hereby adopted as findings of this Board Package pursuant to the CEQA and the CEQA guidelines.
- 3) The general rule findings set forth in Attachment 2 of the Board Package are hereby adopted as findings of this Board pursuant to Health and Safety Code section 40727.
- 4) The Responses to Comments set forth in Attachments 3 and 5 of the Board Package are hereby adopted as findings of this Board.
- 5) Rules 102, 201, 202, and 333 set forth in Attachment 6 of the Board Package are hereby adopted as rules of the Santa Barbara County Air Pollution Control District pursuant to Health and Safety Code section 40725 *et seq.*
- 6) Portable construction engines and well drilling engines that were based in and used in Santa Barbara County prior to June 19, 2008 were previously permit exempt by Rule 202, Sections F.3 and F.6, respectively. These engines lost Permit to Operate exemptions through the adoption of today's amendments to Rule 202. Any such qualifying engine meeting the criteria shall be considered to be a "resident engine," as defined in Title 13, Section

2452(ll)(1), for the purpose of eligibility for registration in the statewide portable equipment registration program or District permitting.

7) The Board authorizes the Control Officer to transmit Rules 102, 201, 202, and 333 to the State Air Resources Board in compliance with applicable state and federal law. Additionally, the Board authorizes the Control Officer to do any other acts necessary and proper to obtain necessary approvals of the new rules by the California Air Resources Board and the United States Environmental Protection Agency.

DACCED AND ADOPTED by the Air Dellytica Control District Decod of the

PASSED AND ADOPT	ED by the Air Pollution Control District Board of the
County of Santa Barbara, State of Califo	ornia, this June 19, 2008, by the following vote:
AYES:	
NOES:	
ABSTAIN:	
ABSENT:	
ATTEST: TERRY DRESSLER CLERK OF THE BOARD, By Deputy	Chair, Air Pollution Control District Board of the County of Santa Barbara
	APPROVED AS TO FORM:  DANIEL J. WALLACE SANTA BARBARA COUNTY COUNSEL
	By Deputy Attorneys for the Santa Barbara County Air Pollution Control District

**CEQA FINDINGS** 

PROPOSED AMENDED RULE 102 (DEFINITIONS)

PROPOSED AMENDED RULE 201 (PERMITS REQUIRED)

PROPOSED AMENDED RULE 202 (EXEMPTIONS TO RULE 201)

PROPOSED AMENDED RULE 333 (CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES)

June 19, 2008

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# **CEQA FINDINGS**

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. The Negative Declaration is included in Attachment 7.

The documents and other materials that constitute the record of proceedings upon which this decision is based are located at the Santa Barbara County APCD offices at 260 N. San Antonio Road Suite A, Santa Barbara, CA 93110. The custodian of these materials is the APCD Rules Engineer for this project.

The APCD Board has considered the Negative Declaration for revised APCD Rules 102 (Definitions), 201 (Permits Required), 202 (Exemptions to Rule 201), and 333 (Control of Emissions from Reciprocating Internal Combustion Engines) together with any comments received and considered during the public review process and the Board Hearing.

The Negative Declaration reflects the independent judgment of the APCD Board, has been completed in compliance with CEQA, and is adequate for this proposal.

# **RULE FINDINGS**

PROPOSED AMENDED RULE 102 (DEFINITIONS)

PROPOSED AMENDED RULE 201 (PERMITS REQUIRED)

PROPOSED AMENDED RULE 202 (EXEMPTIONS TO RULE 201)

PROPOSED AMENDED RULE 333 (CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES)

June 19, 2008

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# RULE FINDINGS FOR PROPOSED AMENDED RULES 102, 201, 202, AND 333

Pursuant to California Health and Safety Code Section 40727, the Board makes the following findings for the adoption of amended Rules 102 (Definitions), 201 (Permits Required), 202 (Exemptions to Rule 201), and 333 (Control of Emissions from Reciprocating Internal Combustion Engines).

# **Necessity**

The Board determines that it is necessary to amend Rules 102, 201, 202, and 333 to fulfill the commitment in the 2007 Clean Air Plan to implement control measures N-IC-1 and N-IC-3 for controlling emissions from reciprocating internal combustion engines.

# Authority

The Board is authorized under state law to adopt, amend, or repeal rules and regulations pursuant to Health and Safety Code Section 40000, and 40725 through 40728 which assigns to local and regional authorities the primary responsibility for the control of air pollution from all sources other than exhaust emissions from motor vehicles. Additionally, pursuant to Health and Safety Code Section 40702, the District Board is required to adopt rules and regulations and to do such acts as are necessary and proper to execute the powers and duties granted to it and imposed upon it by State law.

# Clarity

The Board finds that proposed amended rules are sufficiently clear. The rules were publicly noticed, and reviewed by the Community Advisory Council. The rules are written or displayed so that persons directly affected by them can easily understand their meaning.

# Consistency

The Board determines that proposed amended rules are consistent with, and not in conflict with or contradictory to, existing federal or state statutes, court decisions, or regulations with regard to the control of emissions from reciprocating internal combustion engines, permitting provisions, and exemptions from the New Source Review requirements of Regulation VIII.

The neighboring air pollution control districts such as Ventura County Air Pollution Control District, San Joaquin Valley Unified Air Pollution Control District, and San Luis Obispo Air Pollution Control District have adopted similar rules. Based on this evidence, the Board finds that the rules are consistent with neighboring air pollution control districts.

# Nonduplication

The Board finds that the proposed amended rules do not impose the same restrictions as any existing state or federal regulation, and the proposed amendments are necessary and proper to execute the powers and duties granted to, and imposed upon, the APCD.

# Reference

The Board finds that we have authority under state law to amend Rules 102 (Definitions), 201 (Permits Required), 202 (Exemptions to Rule 201), and 333 (Control of Emissions from Reciprocating Internal Combustion Engines) pursuant to Health and Safety Code Section 39002 which assigns to local and regional authorities the primary responsibility for the control of air pollution from all sources other than exhaust emissions from motor vehicles. Additionally, pursuant to Health and Safety Code Section 40702, the Board is required to adopt rules and regulations and to do such acts as are necessary and proper to execute the powers and duties granted to it and imposed upon it by State law.

# Effect of Rulemaking on Existing Permit-Exempt Portable Engines

Well Drilling and Construction Engines Subject to Rule 202, Section F.3 and F.6, as Specified in the Rule 202 Adopted January 17, 2008

Portable construction engines and well drilling engines that were based in and used in Santa Barbara County prior to June 19, 2008 were previously permit exempt by Rule 202, Sections F.3 and F.6, respectively. These engines lost Permit to Operate exemptions through the adoption of today's amendments to Rule 202. The Board makes the finding that any such qualifying engine meeting the criteria shall be considered to be a "resident engine," as defined in Title 13, Section 2452(II)(1), for the purpose of eligibility for registration in the statewide portable equipment registration program or District permitting.

# **Public Comment**

# Response to Comments

The Board has reviewed the response to public comments included in Attachments 3 and 5 and hereby approves those responses to comments as findings.

PUBLIC COMMENTS AND RESPONSE TO PUBLIC COMMENTS (JANUARY 4, 2006 TO MARCH 10, 2008)

PROPOSED AMENDED RULE 102 (DEFINITIONS)

PROPOSED AMENDED RULE 201 (PERMITS REQUIRED)

PROPOSED AMENDED RULE 202 (EXEMPTIONS TO RULE 201)

PROPOSED AMENDED RULE 333 (CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES)

June 19, 2008

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# PUBLIC COMMENTS AND RESPONSE TO PUBLIC COMMENTS ON PROPOSED AMENDED RULES 102 (DEFINITIONS), 201 (PERMITS REQUIRED), 202 (EXEMPTIONS TO RULE 201), AND 333 (CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES) – JANUARY 4, 2006 TO MARCH 10, 2008<sup>a</sup>

# 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

Santa Barbara County APCD, Reg. II, Rule 333, Comments and Responses (January 4, 2006 to March 10, 2008) 3-1

<sup>&</sup>lt;sup>a</sup> These are the same public comments and responses to public comments that appear in the Appendix J of the Staff Report, for this project.

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. On the applicability of prohibitory rules or NSPS requirements to stacked equipment, the APCD applies the prohibitory rules and other regulations

<sup>&</sup>lt;sup>1</sup> APCD 8 December 2005 workshop response to VAFB question.

- (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 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)<sup>2</sup>. Because of these NSR requirements, VAFB

Santa Barbara County APCD, Reg. II, Rule 333, Comments and Responses (January 4, 2006 to March 10, 2008) 3-3

<sup>&</sup>lt;sup>2</sup> NSR at VAFB includes offsetting, an AQIA and a HRA.

continues to operate diesel engines negating the opportunity for an air quality benefit.

(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<sup>3</sup>, 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

<sup>&</sup>lt;sup>3</sup> VAFB understands additional recordkeeping is required to track these actual emissions.

verification provisions. These components are also within the CARB RACT/BARCT Determination.

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 powergenerating 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 than 1 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 microturbines 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<sub>x</sub> 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<sub>x</sub> 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 prototools [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 fourfold 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. bargemounted 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.L8.

### 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:

 $[\ldots]$ 

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.

 $[\ldots]$ 

### **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.

- 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.

### <u>Semi-submersible Drill Rigs, Drill Ships, and</u> 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 semisubmersible 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 13<sup>th</sup> 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 13<sup>th</sup> 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 13<sup>th</sup> 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.

### **ATTACHMENT 4**

PUBLIC COMMENTS (MARCH 11, 2008 TO JUNE 10, 2008)

PROPOSED AMENDED RULE 102 (DEFINITIONS)

PROPOSED AMENDED RULE 201 (PERMITS REQUIRED)

PROPOSED AMENDED RULE 202 (EXEMPTIONS TO RULE 201)

PROPOSED AMENDED RULE 333 (CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES)

June 19, 2008

Santa Barbara County Air Pollution Control District

260 San Antonio Road, Suite A Santa Barbara, California 93110

(805) 961-8800

### **ATTACHMENT 4**

# PUBLIC COMMENTS ON PROPOSED AMENDED RULES 102 (DEFINITIONS), 201 (PERMITS REQUIRED), 202 (EXEMPTIONS TO RULE 201), AND 333 (CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES) – MARCH 11, 2008 TO JUNE 10, 2008

### California Air Resources Board June 3, 2008

### **Rule 101 Definitions**

We have no comments on this rule.

### Rule 201 Permits Required

We have no comments on this rule.

#### Rule 202 Exemptions to Rule 201

We have no comments on this rule.

### **Rule 333 Control of Emissions from Reciprocating Internal Combustion Engines**

1. Section B.2: The staff of the Air Resources Board (ARB) needs to clarify comment number 1 in our letter to the District dated February 13, 2008. To reiterate Section B.2 of Rule 333 provides a general exemption from all requirements of Rule 333 for any engine that has a total aggregated operational period less than 200 hours per calendar year. We characterized this provision as less stringent than a similar provision contained in Section 93115.3 (j) of ARB's Air Toxic Control Measure for Stationary Internal Compression Engines (ATCM). As stated in our comment, many compression ignition engines subject to District Rule 333 are also subject to the ATCM. Our concern was that the owners and operators of these engines must clearly understand that only prime engines operating no more than 20 hours are eligible for an exemption from the ATCM NOx, CO, HC, and NMHC+NOx emission limits.

Several important conditions of Section 93115.3 (j) were not clearly stated in our original comment to District staff. To clarify, the ATCM's low-use prime engine exemption is only for in-use stationary diesel-fueled CI prime engines located beyond school boundaries and must be approved in writing by the district Air Pollution Control Officer. And, this section requires the engine to be located more than 500 feet from a school at all times. Aside from these clarifications, note 6A of

section B.2 in the proposed amended Rule 333, does not recognize the low-use exemption (section 93115.3 (j)) only applies to the emission standards in Section 93115.7 (b)(1). This exemption in the ATCM does not relieve the owner or operator from other requirements of the ATCM.

1 - 1 (cont.)

2. Section E.4: The NOx limit for compression ignition engines (i.e., 700 ppmv @ 15% O2 or ~9 g/bhp-hr) is not as stringent as the ATCM's requirement for in-use stationary CI engines. The ATCM requires these engines to meet the more stringent of: 1) the standards for off-road engines of the same model year and maximum rate power as specified in the Off-Road Compression Ignition Engine Standards (title 13, CCR, Section 2423) of the engine installed to meet the applicable PM standard, or 2) the Tier 1 standards if no off-road engine certification standards are established for the in-use stationary diesel-fueled engine's model year. For your information the Tier 1, NOx emission standard is 6.9 g/bhp-hr. This provision is contained in Sections 93115.7 (b) and 93115.8 (b) of the ATCM.

1 - 2

Since new and in-use diesel-fueled stationary prime compression ignition engines are subject to proposed amended Rule 333 and also subject to the ATCM we recommend that the District make it very clear to the owners or operators of subject engines that the ATCM's more stringent NOx emission limits supersede the NOx limit in Rule 333. It is also important to emphasize to these stakeholders that these engines are concurrently subject to other requirements of the ATCM such as reporting, monitoring, compliance schedules, and compliance demonstrations. Lastly, keep in mind the approved test methods for demonstrating compliance for NOx, CO, and HC are contained in section 9

1 - 1

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### **ATTACHMENT 5**

RESPONSE TO COMMENTS MARCH 11, 2008 to JUNE 10, 2008

PROPOSED AMENDED RULE 102 (DEFINITIONS)

PROPOSED AMENDED RULE 201 (PERMITS REQUIRED)

PROPOSED AMENDED RULE 202 (EXEMPTIONS TO RULE 201)

PROPOSED AMENDED RULE 333 (CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES)

June 19, 2008

Santa Barbara County Air Pollution Control District

260 San Antonio Road, Suite A Santa Barbara, California 93110

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### **ATTACHMENT 5**

# RESPONSE TO PUBLIC COMMENTS ON PROPOSED AMENDED RULES 102 (DEFINITIONS), 201 (PERMITS REQUIRED), 202 (EXEMPTIONS TO RULE 201), AND 333 (CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES) – MARCH 11, 2008 TO JUNE 10, 2008

COMMENT NUMBER	RESPONSE
1 - 1	We believe that Note 6A in the annotated version of the proposed amended Rule 333 sufficiently states, in general terms, that a low-use prime engine MAY be exempt from Rule 333, but not the ATCM.
1 - 2	Similarly, we believe that Note 43 in the annotated version of proposed amended Rule 333 sufficiently indicates that the ATCM requirements are more restrictive and supersede the less-stringent limits in Rule 333.

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### **ATTACHMENT 6**

## PROPOSED AMENDED RULE 102 (DEFINITIONS)

PROPOSED AMENDED RULE 201 (PERMITS REQUIRED)

PROPOSED AMENDED RULE 202 (EXEMPTIONS TO RULE 201)

### PROPOSED AMENDED RULE 333 (CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES)

June 19, 2008

Santa Barbara County Air Pollution Control District

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### Attachment 6

### Proposed Rule Text

[Proposed rule text is provided in strike out and underline format. Strike-out indicates text proposed for deletion. Underline text indicates proposed new text.]

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, and 5/20/1999, 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.

[...]

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

[...]

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

 $[\ldots]$ 

**"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.

"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).

[...]

**"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.

[...]

"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.

**"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.

 $[\ldots]$ 

"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."

"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.

 $[\ldots]$ 

- **"Portable <u>iInternal eCombustion eEngine"</u>** 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:
  - 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.

 $[\ldots]$ 

"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.

[...]

"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.

 $[\ldots]$ 

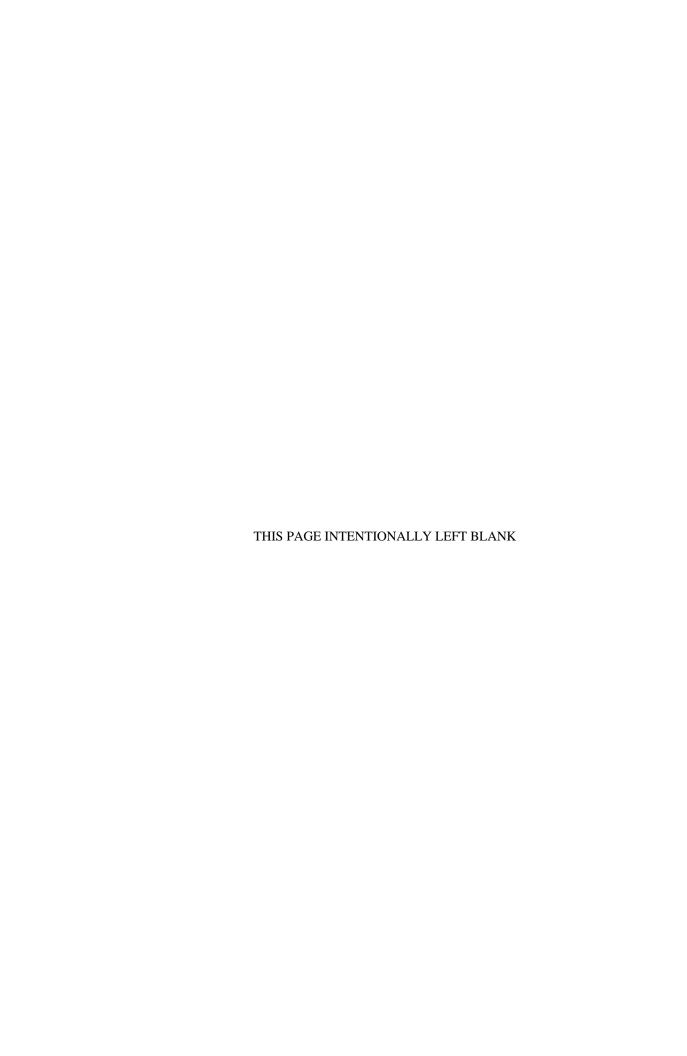
"Specialty Equipment" means portable engines used to power equipment located in the Outer Continental Shelf or State Territorial Waters that satisfy all of the following conditions:

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

 $[\ldots]$ 

APPROVED AS TO FORM:
DANIEL J. WALLACE SANTA BARBARA COUNTY COUNSEL
By
Deputy
Attorneys for the Santa Barbara County Air Pollution Control District



### RULE 201. PERMITS REQUIRED. (Adopted 10/18/1971, revised 5/1/1972, readopted 10/23/1978, revised 7/2/1979, 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

- 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.
- 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.

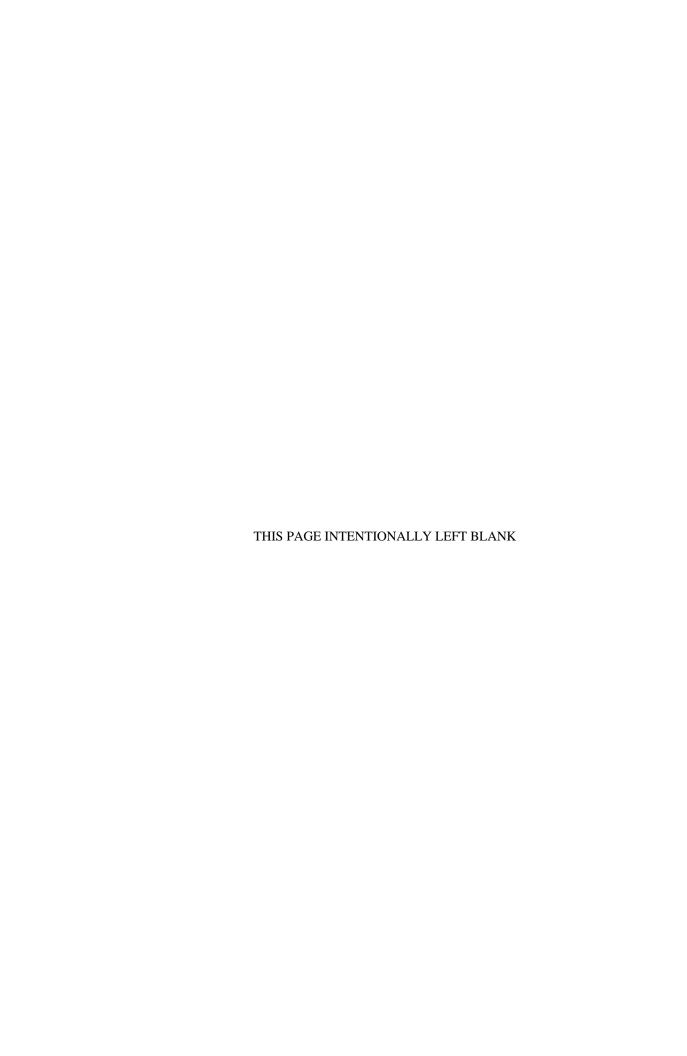
[...]

APPROVED AS TO FORM:

DANIEL J. WALLACE SANTA BARBARA COUNTY COUNSEL

By		
-	Deputy	

Attorneys for the Santa Barbara County Air Pollution Control District



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 Rulerule, any:

- eEquipment, activity or operations proposed by an applicant for use as an Emission Reduction Credit is not exempt.
- Emission unit that functions for distributed electrical generation and is not certified under the regulations of the Air Resources Board is not exempt.

[...]

### D. General Provisions

 $[\ldots]$ 

### 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.

[...]

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:

 $[\ldots]$ 

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).

 $[\ldots]$ 

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.

 $[\ldots]$ 

- 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.
- 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.
- 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).

[...]

### 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 <u>rated</u> brake horsepower of <u>less than 50 or less</u>. <u>No compression ignition engine otherwise subject to permit shall be exempt because it has been derated.</u>
  - 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.

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.

- 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).
- 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

- <u>D.16</u> 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 Boardissued registration.
- 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.
- 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.
- <u>54</u>. A permit shall not be required for engines <u>with a rated brake horsepower of less</u> than 50 <u>bhp</u>-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.
- 65. 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.
- 76. 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.

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.

### **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 <u>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.</u>

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 Rulerule, 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.

[...]

### 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.

[...]

### 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.

 $[\ldots]$ 

### 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 <a href="https://example.com/British.com/Briti
- 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.

[...]

### 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.

[...]

### 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.

 $[\ldots]$ 

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.

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

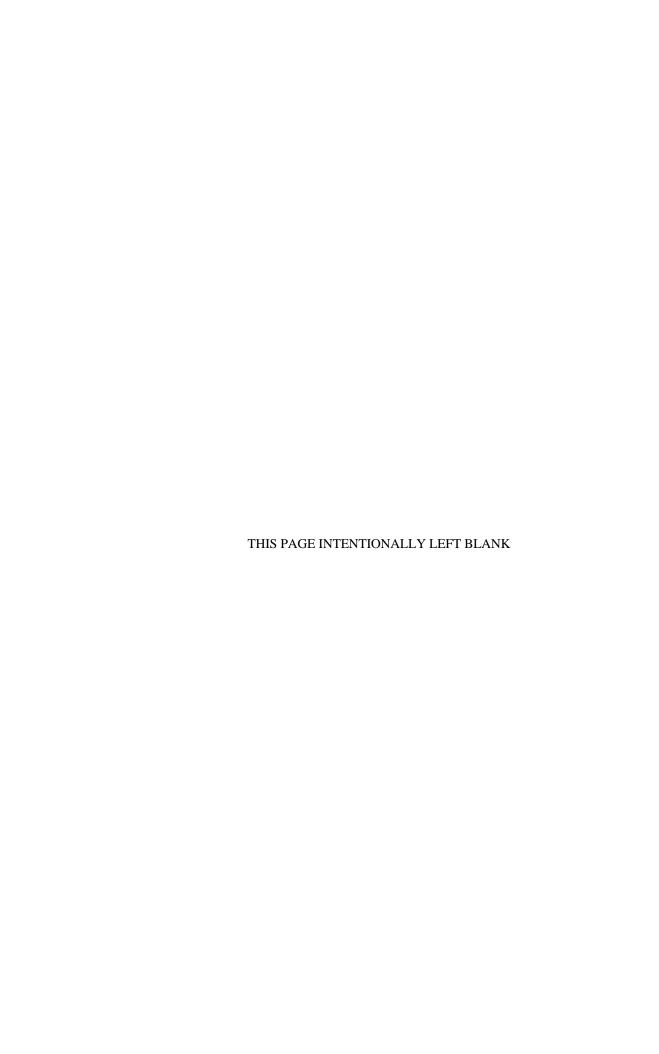
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APPROVED AS TO FORM:

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Deputy Deputy

Attorneys for the Santa Barbara County Air Pollution Control District



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

### A. Applicability

1. The provisions of this rule <u>shall</u> apply to <u>all any</u> engines 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.

### B. Exemptions

- 1. Notwithstanding A.1., tThe requirements of this Rrule shall not apply to:
  - a. EnginesSpark 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 measures the volumes (ft³ cubic feet) of landfill gas used and a separate fuel meter for the volume (ft³) 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:

Volume in  $\text{#}^3$  cubic feet of landfill gas consumed annually x 100

Percent of Fuel use Landfill Gas Percentage -=

Total Volume in #<sup>3</sup>cubic feet of all gas-gaseous fuel consumed annually

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

- b. Engines that are exempt from permit under the provisions of Rules 202, Exemptions to Rule 201.
  - 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.
- 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.
- 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 schedules for these provisions specified 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.
- 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.

#### C. Definitions

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

- "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.
- **'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.
- "Cyclically-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 pumping unit including beambalanced or crank-balanced pumps. Engines powering air-balanced pumps are noncyclically-loaded engines.
- 1. "Engine" means any spark or compression <u>ignited-ignition</u> 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.
- "Noncyclic engine" means any engine which is not a cyclic engine.
- "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.
- 4. "Existing engine" means an engine which that by December 3, 1991 [date of revised rule adoption];
  - 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
  - b2. has been identified in an application for an ATC Authority to Construct submitted to and deemed complete by the District; or

- e3. 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].
- "New engine" is an engine which is not an existing engine.
- "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).
- **"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.
- 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 42 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.

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

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

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

- "Rich-burn Eengine" 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 42 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.
- 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.

"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.

"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.

### 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.

- 2. Each engine shall be equipped with a nonresettable elapsed operating time meter and the meter shall be maintained in proper operating condition.
- 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.
- 4. Engines in the following category shall be equipped with a continuous oxides of nitrogen, carbon monoxide, and oxygen monitoring system approved by the Control Officer pursuant to an Authority to Construct:

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 and carbon monoxide 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.

# **DE.** 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  $\frac{IK}{IK}$ :

- 1. Noncyclic Rich-Burn Noncyclically-Loaded Spark Ignition Engines
  - a. <u>The emission concentrations, corrected for oxygen, from any such engine Rich burn</u> noncyclic engines shall not exceed the following concentration limits corrected for oxygen:

# Limit (ppmVppmv at 15 percent oxygen)

Pollutant	15% Oxygen	3% Oxygen
NOx	50	<del>152</del>
ROC	250	<del>758</del>
CO	4.500	<del>13,653</del>

- 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.
- 2. Noncyclic Lean-Lean-Burn Spark Ignition Engines
  - a. <u>The emission concentrations, corrected for oxygen, from any such engine Lean burn noncyclic engines</u>-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:

## Limit (ppmv at 15 percent oxygen)

# **Pollutant**

NOx	<u>200</u>
ROC	<del>750</del>
CO	4.500

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

# Limit (ppmVppmv at 15 percent oxygen)

Pollutant	15% Oxygen	<del>3% Oxygen</del>	
NOx	125	<del>380</del>	
ROC	750	<del>2,275</del>	
CO	4,500	<del>13,653</del>	

- b. Lean burn engines shall meetAny 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.
- 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 (ppmVppmv at 15 percent oxygen)

Pollutant	15% Oxygen	3% Oxygen
NOx	<del>50</del> 300	<del>-152</del>
ROC	250	<del>758</del>
CO	4,500	<del>13,653</del>

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

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.

# 4. <u>Compression Ignition Engines and Dual-Fuel Engines</u>

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:

# Limit (ppmVppmv at 15 percent oxygen)

Pollutant	15% Oxygen	3% Oxygen
NOx ROC	<del>797</del> 700 750	<del>2,400</del>
<u>CO</u>	<u>4,500</u>	

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.

5.	Alternative Emission Control Plan (AECP)
	An owner or operator of any existing engine subject to this rule may meet the NO <sub>*</sub> 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 <sub>x</sub> , ROC and CO ppmv emission limits for each engine. NO <sub>x</sub> 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 <sub>x</sub> 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 <sub>*</sub> 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.e 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.

65. The use of anhydrous ammonia to meet the requirements of this rule is prohibited <u>unless casespecific analysis indicates that the use is acceptable to the Control Officer</u>.

# **EF.** Requirements - Owner or Operator Engine Inspections and Maintenance Plan

All-Any engines 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.
- 2. Such plan shall list List all engines by engine classification, identified as either cyclics (rich-burn noncyclically-loaded spark ignition, rich-burn cyclically-loaded spark ignition, lean-burn spark ignition, and noncyclicscompression 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 DE.
- 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.
- A portable NOx-emissions analyzer or any other method approved by the Control Officer shall be <del>4</del>3. 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. An 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-ofcompliance 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 values 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).

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

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.

## **FG.** Requirements - Compliance Plan

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 planPlan. 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:

- 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
- <u>List</u> 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
- 3. List the applicable emission limits.
- <u>List</u> 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.
- 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.
- 46. List of all existing and operating engines planned for shutdown or electrification and the proposed date of shutdown or electrification.

An owner or operator may modify a compliance Compliance plan Plan by submitting a modified plan 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.

## H. [Reserved]

# **GI.** Requirements - <u>Source</u> Testing

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

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 DE. SThese source tests shall be performed within 30 ealendar days of the anniversary date of the initial source test, unless the Control Officer approves a period longer than thirty (30) ealendar 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.

- 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 planshall be obtained prior to the start of a source test. The approved pPlan shall be on-filed with the District at least thirty (30) calendar days before the start of each source testing. 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 for those parameters specified in the Engine Inspection and Maintenance Plan described in Section F.
  - 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.
- 3. e. Source testing shall be performed by a source test contractor certified by the California Air Resources Board. <u>District required Source</u> testing shall not be performed by a source owner or operator unless approved by the Control Officer.
- 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.
- 5. <u>d. The owner or operator of For any engine which that is found not to be in compliance with Section DE</u>: as a result of source testing, shall comply with the following shall apply:
  - <u>a.</u> <u>i. A rR</u>epeat <u>a source test shall be performed</u> to demonstrate compliance with Section <u>D.E</u> 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 in compliance with Section D.E. by two consecutive annual source tests, the engine shall comply with the provisions of Section G.1.bI.1.
- 26. 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 \$\frac{\text{GI}}{1}\$.
- 37. Test Methods
  - a. Source testing shall be performed in accordance with the following procedures:

NOx, CO, O2: CARB Method 1 100

ROC: EPA Method 18 or EPA Method 25

- 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.
- 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.
- 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.
- 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.
- vii. Determination of the Fuel Composition and Higher Heating Value: The following applicable standards developed by the ASTM International: ASTM Method
  - 1) ASTM D-1945-8103, "Standard Test Method for Analysis of Natural Gas by Gas Chromatography," ASTM International,
  - 2) ASTM Method-D-3588-8198 (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,
  - 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.

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

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 <u>ARB-Air Resources Board</u> and <u>the EPA Environmental Protection</u> Agency.
- 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.
- 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.

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.

# **HJ.** 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:
  - 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.
  - hHours of operation, as determined by a nonresettable elapsed operating time meter, each month for each engine since the last inspection;.
  - b)c. lLocation 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.
  - e)d. a-A summary of any maintenance performed on an emission control device;

- <u>a-A</u> summary of any maintenance performed on an engine which that affects the emission control device.; and,
- e)f. the oObservations made in during each monthly or quarterly inspection, pursuant to the requirements of Section E-F.3.
- g. Date of each log entry and the printed or typed name of the person entering the log information.
- 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.
- 2. Copies of all <a href="mailto:engine-Engine Operation">engine Operation</a>, inspection</a>, and <a href="mailto:maintenance-logs">maintenance-logs</a>
  <a href="Logs">Logs</a> shall be retained <a href="by-the-operator-for">by-the-operator-for</a> a minimum of 2 years after the date of the last entry and shall be available to the District upon request. <a href="Thereafter">Thereafter</a>, 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.
- 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:
  - Engine's classification (rich-burn noncyclically-loaded spark ignition, rich-burn cyclically-loaded spark ignition, lean-burn spark ignition, compression ignition, or dualfuel), make, model, and serial number or the owner's or operator's unique identification number.
  - 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.
  - c. Location of operation of the engine.
  - d. Date of each log entry and the printed or typed name of the person entering the log information.
  - 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.

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.

# **IK.** 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.

- 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
  - 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.
  - e. 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.

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].

- 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.
- 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.
- 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;
  - ii. by [six months from the date of revised rule adoption]:
    - submit a new/revised Engine Inspection and Maintenance Plan for the
       Control Officer's approval pursuant to Section F. Any previously approved Engine Inspection and Maintenance Plan will continue to be in force until the Control Officer approves a revised plan; and
    - 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
  - <u>iii.</u> by [nine months from the date of revised rule adoption], install and comply with the metering requirements in Sections D.2 and D.3.

# **ATTACHMENT**

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

Engine Type	<u>Category</u> Number	April 17, 1997 Adopted Rule 333 NOx Limits		[Date of Revised Rule Adoption] Adopted Rule 333 NOx Limits		Effect of Change
	Number	<u>%</u> <u>Contro</u> <u><u>l</u></u>	ppmv (at 15% O2)	<u>%</u> <u>Contr</u> <u>ol</u>	ppmv (at 15% O2)	
Rich-Burn Noncyclically- Loaded Spark Ignition Engines	<u>1</u>	<u>90</u>	<u>50</u>	<u>90</u>	<u>50</u>	No change
Lean-Burn Spark Ignition Engines in the 50 to less than 100 bhp Range	<u>2</u>	<u>80</u>	<u>125</u>	П	<u>200</u>	Increased emission limit
Lean-Burn Spark Ignition Engines Rated 100 bhp or Greater	<u>3</u>	<u>80</u>	<u>125</u>	<u>80</u>	<u>125</u>	No change
Rich-Burn Cyclically-Loaded Spark Ignition Engines	<u>4</u>	<u>90</u>	<u>50</u>	11	<u>300</u>	Increased emission limit
Compression Ignition Engines and Dual-Fuel Engines	<u>5</u>	Ξ	<u>797</u>	<u>40</u>	<u>700</u>	Decreased emission limit

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

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

# APPROVED AS TO FORM: DANIEL J. WALLACE SANTA BARBARA COUNTY COUNSEL By\_\_\_\_\_ Deputy Attorneys for the Santa Barbara County Air Pollution Control District

# **ATTACHMENT 7**

# INITIAL STUDY/ PROPOSED NEGATIVE DECLARATION

# **FOR**

REVISIONS TO APCD RULE 333, RULE 102, RULE 201, AND RULE 202

May 8, 2008

Santa Barbara County Air Pollution Control District

260 North San Antonio Road, Suite A Santa Barbara, California 93110

(805) 961-8800



# INITIAL STUDY/ PROPOSED NEGATIVE DECLARATION

for

# REVISIONS TO APCD RULE 333, RULE 102, RULE 201 AND RULE 202

May 8, 2008

# **Prepared by**

Community Programs Section
Technology and Environmental Assessment Division
Santa Barbara County Air Pollution Control District



260 N. San Antonio Road, Suite A Santa Barbara, CA 93110-1315

# **INITIAL STUDY**

**PROJECT NAME:** Proposed Revisions to Rules 102 (Definitions), 201 (Permits

Required), 202 (Exemptions to Rule 201), and 333 (Control of Emissions from Reciprocating Internal Combustion Engines).

**PROJECT LOCATION:** Santa Barbara County, State Tidelands and Outer Continental

Shelf waters within 25 miles of the seaward boundaries of the State and located off the coast of the County for which the APCD

is the corresponding onshore area.

**PROJECT PROPONENT:** Santa Barbara County Air Pollution Control District

260 N. San Antonio Road, Suite A Santa Barbara, CA 93110-1315

Contact: Doug Grapple, Rules Engineer

LEAD AGENCY CEQA CONTACT: Bobbie Bratz, SBCAPCD Environmental Officer

## **BACKGROUND AND PREVIOUS ENVIRONMENTAL REVIEW**

In 1991, the APCD prepared a program Environmental Impact Report (91-EIR-4, SCH# 91031045) to analyze the potential environmental impacts of implementing the 1991 Air Quality Attainment Plan (AQAP). Proposed control measures for controlling internal combustion engines were included in the 1991 AQAP.

The APCD first adopted Rule 333 for controlling engines in 1991. At that time, the Board approved the use of the 1991 AQAP Draft EIR and an Addendum as the appropriate environmental documents to fulfill the CEQA requirements for Rule 333. The Addendum made minor technical changes to the 1991 AQAP Draft EIR in order to make the Draft EIR appropriate under CEQA for Rule 333.

Amendments to Rule 333 were last adopted in 1997. Pursuant to the California Environmental Quality Act (CEQA), the Board considered an *Addendum to 1991 Air Quality Attainment Plan (AQAP) EIR; 1994 Clean Air Plan (CAP) Supplemental EIR* and made findings pursuant to §15164 of the State CEQA Guidelines. The Board found pursuant to §15162 of the State CEQA Guidelines, no new effects will occur and no new mitigation measures are required beyond those considered in the *1991 AQAP EIR and Addendum;* the *1994 CAP SEIR*. Subsequently, the 2001 and 2004 Clean Air Plans were adopted which included Rule 333 as a control measure. To address EPA and ARB concerns, the APCD included modifications to the engine control measures in the 2001 and 2004 Clean Air Plans. The APCD prepared a Supplemental Environmental Impact Report (SCH No. 1991031045) to analyze the potential environmental impacts of implementing the 2001 and 2004 Clean Plans, including the modifications to the engine permitting requirements and prohibitory rule.

In reference to adopting revisions to Rule 333, page 7-7 of the 2001 SEIR and page 5-3 of the **2004 CAP SEIR** reiterated the identified potentially significant impacts which were mitigated fully (Class II) in the areas of Air Quality, Water Resources, Biological Resources and Hazardous Materials. The 2004 CAP SEIR states, "The short-term and long-term revisions to Rule 333 will result in reductions in NOx and a slight increase in ROC (approx.6-7 lbs/day) by the years 2010 to 2020. This is not considered a significant adverse air quality impact. There will be no new environmental impacts that were not analyzed in the 1991 AQAP EIR. "

# **CURRENT PROJECT DESCRIPTION**

The proposed changes to Rule 102 (Definitions), Rule 201 (Permits Required), Rule 202 (Exemptions to Rule 201) and Rule 333 (Control of Emissions from Reciprocating Internal Combustion Engines) will affect oil and gas exploration, production, processing and marketing sources; mineral processing; construction; and any other activity using an engine rated 50 brake horsepower (bhp) or greater to provide primary power. The primary goal of this rulemaking effort is to address EPA-identified rule deficiencies for Rules 202 and 333 regarding the permitting and control of engines. The proposed revisions are shown in Appendix A.

Rule 102 (Definitions) proposed revisions are primarily administrative. The APCD proposes to add and modify several definitions that are used in various parts of the rulebook.

Rule 201, (Permits Required) proposed revisions are also administrative in nature. Permits are currently not required for equipment that has obtained statewide portable equipment registration. These include: portable engines used for well drilling, service or work-over rigs, power generation, pumps, compressors, diesel pile-driving hammers, welding, cranes, wood-chippers, dredges, and military tactical support engines. Construction equipment could include jackhammers, and many portable units, such as welders and cranes. An unregistered piece of equipment that does not meet the temporary limits for emissions or time usage must receive an APCD permit.

**Rule 202 (Exemptions to Rule 201)** proposes to increase the population of engines subject to permitting and Rule 333 requirements; however, Rule 202 also proposes to add new

exemptions. Proposed rule changes include a new Section 202.D.15. This section will clarify that combustion equipment eligible for the 202.F.1.e, 202.F.1.f, and 202.G.1 exemptions shall have their ratings accumulated to determine exemption applicability when used in the same process. The APCD is recommending additional Rule 202 revisions to add exceptions and to streamline APCD permits (e.g., for engines used in demolition, construction, maintenance and repair activities). Alternatively, the proposed Rule 202 revisions also allow that the project can commit to limiting its potential to emit emissions to a specified number of tons per year and then, APCD permits must be obtained which are subject to CEQA review.

The proposed amended Rule 202 sections discussed below include 202.F.7, 202.F.8, and 202.P.14. A complete copy of each of these proposed Rules revisions are included in the Appendix A to this document in strike out and underlined format. The portions of the proposed revisions that may have the potential for adverse environmental impacts are provided below:

Proposed Rule 202.F.7 (ATC and PTO for Pile Driving, Cable and Pipe-Laying Marine Vessels and Derrick Barges, which Exempts the Source from NSR): A permit shall not be required for equipment, including associated marine vessels, used for pile driving adjacent to or in waterways, or cable and pipe-laying vessels/barges or derrick barges if the potential to emit of such equipment per stationary source is less 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.

Rule 202.F.8 (ATC and PTO for Marine Vessel Engines Associated with Construction, Maintenance, Repair, and/or Demolition Activities at a Stationary Source, which Exempts the Source from NSR): 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.

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).<sup>1</sup>

Rule 202.P.14 (ATC and PTO for Marine Vessel Engines Associated with Launch Vehicle Recovery Operations for the Missile Defense Agency's Airborne Laser Program, which **Exempts the Source from NSR):** 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/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.

Rule 333 (Control of Emissions from Reciprocating Internal Combustion Engines): Revisions to Rule 333 will change some of the emission limits for the engines and add or enhance other requirements. Portable construction engines (diesel and spark ignition engines) will be required to be: 1) registered in the statewide portable equipment registration program (PERP), or 2) permitted with the APCD. Previously unpermitted stationary spark ignition engines rated between 50 and 100 bhp will require permits. Unpermitted smaller spark ignition engines (20 to less than 50 bhp) at a stationary source may also require permits.

The prohibition on the use of anhydrous ammonia to meet the requirements of Rule 333 has been amended. The use of anhydrous ammonia to meet the requirements of this rule is

<sup>&</sup>lt;sup>1</sup> Rule 202.F.1 and F.1.b indicate, "A permit shall not be required for internal combustion engines if any of the following conditions is satisfied: 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."

prohibited, unless case specific analysis indicates that the use is acceptable to the Control Officer.

# **ENVIRONMENTAL SETTING**

Geographically, the Rules apply to projects located in Santa Barbara County, State Tidelands and Outer Continental Shelf waters within 25 miles of the seaward boundaries of the State and located off the coast of the County for which the APCD is the corresponding onshore area. The 2007 Clean Air Plan is the most recent plan, which was prepared to meet the State Clean Air Act requirements. The accompanying Supplemental EIR (APCD-2007-SEIR-01, SCH # 1991031045) describes the existing Santa Barbara County environment setting and is incorporated herein by reference and is updated and summarized below.

Santa Barbara County is considered in attainment of the federal eight-hour ozone standard, and in attainment of the state one-hour ozone standard. The county does not meet the state eight-hour ozone standard or the state standard for particulate matter less than ten microns in diameter (PM10); the county does meet the federal PM10 standard. There is not yet enough data to determine the attainment status for either the federal standard for particulate matter less than 2.5 microns in diameter (PM2.5) or the state PM2.5 standard, although we will likely be in attainment for the federal 2.5 standard.

The largest contributor to locally generated air pollution onshore is on-road mobile sources (cars and trucks), which contribute 40 percent of the reactive organic compounds and 55 percent of the emissions of oxides of nitrogen. Other mobile sources (planes, trains, boats), the evaporation of solvents, combustion of fossil fuels, surface cleaning and coating, and petroleum production and marketing combine to make up the remainder.

Global Warming and Climate Change: On January 1, 2007 the California Global Warming Solutions Act (AB 32) went into effect. The Act commits the State to reduce its global warming emissions to 2000 levels by 2010 (11% below business as usual), to 1990 levels by 2020 (25% below business as usual), and 80% below 1990 levels by 2050. The California Air Resources Board is working on strategies to achieve these goals.

# OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED

There are no other public agencies whose approval is required for this project. However, after the Rule revisions are adopted by the APCD Board the USEPA must approve all Rules that are a part of the State Implementation Plan.

## **ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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Aesthetics	Agricultural Resources			
Biological Resources	Cultural Resources	Geology/Soils		
Hazards/Hazardous Materials	Hydrology/Water Quality	Land Use/Planning		
Mineral Resources/Energy	Noise/Nuisance	Population/Housing		
Public Services	Recreation	Transportation/Traffic		
Utilities/Service Systems	Mandatory Findings of Sig	nificance		
<u>DETERMINATION</u>				
On the basis of this initial evaluati	on:			
I find that the proposed prenvironment and a NEGATIVE DEC	oject COULD NOT have a signifi CLARATION will be prepared.	cant effect on the		
I find that although the pro- environment, there will not be a s have been made by, or agreed to DECLARATION will be prepared.	_	ause revisions in the project		
I find that the proposed pr	oject MAY have a significant eff ORT is required.	ect on the environment, and		
I find from existing docum must be prepared pursuant to CEC Earlier Project) or 15162/15163 (S Negative Declaration).	, ,,	.5153 (use of an EIR from an		
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described or attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.				
I find that nothing further is required although the proposed project could have a significant effect on the environment. Nothing further is required because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated				

pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project.

PROJECT EV	ALUATOR:	
Signature:	-signed-	Date: May 6, 2008
	Vijaya Jammalamadaka, Air	· Quality Specialist
CONCURRE	NCE OF APCD ENVIRONMENT	AL OFFICER:
Signature:	-signed-	Date: May 7, 2008
	Bobbie Bratz	

# **EVALUATION OF ENVIRONMENTAL IMPACTS**

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the paragraph following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence than an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, or "Earlier Analyses" may be cross-referenced).

- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on earlier analysis.
  - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated", describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact			
I. AESTHETICS Would the project:	·	Ç	J	•			
a) Have a substantial adverse effect on a scenic vista?							
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?							
c) Substantially degrade the existing visual character or quality of the site and its surroundings?							
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?							
<b>Impact Discussion:</b> The proposed project consists of air district rule revisions to the provisions to obtain air district permits (ATC and PTO) for diesel-powered internal combustion engines. The APCD will be the lead agency or responsible agency under CEQA for any individual permit decision subject to these rules. If there are significant aesthetic impacts, visible to the general public, due to the permit decision, the impacts will be addressed at that time.							
Mitigation and Residual Impact: No mitigation	is required.	Residual impacts	are insignif	icant.			
	Potentia Significa Impac	int significant	Less than significant	No Impact			
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservatio as an optional model to use in assessing impact on agriculture and farmland. Would the project	n s						
a) Convert Prime Farmland, Unique Farmland,	or			$\boxtimes$			

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				
c) Reduce the viability of property for agricultural use (e.g., due to reduced parcel size, restricted agricultural practices, etc.) or otherwise involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				
<b>Impact Discussion:</b> The proposed project consists to obtain air district permits (ATC and PTO) for diese. The APCD will be the lead agency or responsible ag decision subject to these rules. If there are significated decision, the impacts will be addressed at that times	sel-powered i ency under C ant agricultur	nternal comb EQA for any	oustion engi individual pe	nes. ermit
Mitigation and Residual Impact: No mitigation is r	equired. Res	idual impact	s are insignif	icant.
	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
III. AIR QUALITY – The significance criteria established by the Santa Barbara County Air Pollution Control District or more stringent thresholds adopted by the Lead Agency may be relied upon to make the following determinations. Would the project:				
a) Conflict with, or obstruct implementation of, the applicable air quality plan?				
b) Violate any air quality standard or contribute substantially ((including releasing emissions			$\boxtimes$	

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
which exceed <i>project-specific</i> quantitative thresholds for ozone precursors) to an existing or projected air quality violation?		·		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed <i>cumulative</i> quantitative thresholds for ozone precursors)?				
d) Create or contribute to a non-stationary source "hot spot" (primarily carbon monoxide)?				
e) Expose sensitive receptors to <u>substantial</u> toxic or hazardous air pollutant concentrations (including releasing emissions which exceed <i>adopted exposure</i> thresholds)?				
f) Subject a substantial number of people to objectionable odors?				
g) Result in greenhouse gas emissions that would hinder or delay the State's ability to meet the reduction targets contained in AB 32 or the requirements of any other statute or regulation that becomes enforceable in California?				

The proposed project consists of air district rule revisions to the provisions to obtain air district permits (ATC and PTO) for diesel-powered internal combustion engines. Eighty-nine previously exempt engines may become subject to permitting (new applications). Previously identified air quality impacts stem from the use of post combustion treatment processes which require the use of a catalyst (Selective Catalytic Reduction and Non Selective Catalytic Reduction) which can result in the release of heavy metals, such as vanadium pentoxide. Ammonia slip (release of unused ammonia gas) is also a potential impact.

Under the proposed Rule 202, permits will not be required for equipment, including associated marine vessels, used for pile driving adjacent to or in waterways, or cable and pipe-laying vessels/barges or derrick barges if the potential to emit of such equipment per stationary source is less than 25 tons per year of any affected pollutant during any consecutive 12 month period.

Alternatively, an Authority to Construct (ATC) and Permit to Operate (PTO) may be obtained 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. This emission limit is the same as the existing rule, therefore no new impacts will occur.

The exemption for dredging equipment is proposed to be removed. Once an exemption is removed from Rule 202 for existing equipment, the equipment owner/operator must submit a PTO application to the APCD within 90 days from the date of the Rule 202 revision. The APCD's New Source Review (NSR) will not be triggered. This is a strengthening of the current rule to regulate air emissions from dredging activities. No change in adverse impacts to other environmental resources will occur.

Under the proposed rule revisions, NSR will also not be triggered for 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 (more stringent than the current 25 TPY) per stationary source. Alternatively, an Authority to Construct and Permit to Operate may be obtained which limits the potential to emit of such equipment to less than 10 tons per year of any affected pollutant during any consecutive 12 month period. There will be lower potential impacts to the environment from the revised rule revision by the decrease in the threshold from 25 to 10 tons per year. The revised rule also includes other activities not previously included in the rule (maintenance, repair and/or demolition activities).

Under the proposed rule revisions, NSR will also not be triggered for 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** (ABL) program provided the potential to emit is less than 5 TPY. Alternatively, an Authority to Construct and Permit to Operate (which includes the basis (e.g., fuel use) for limiting the potential to emit) may be obtained which limits the potential to emit of such equipment to less than 5 tons per year of any affected pollutant during any consecutive 12 month period. This is a new exemption specifically for the ABL program.

The Airborne Toxic Control Measure (ATCM) 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.

According to the FEIS (1997) and subsequent Supplemental EIS (2003) and Environmental Assessment (VAFB, Dec.,2007) for the ABL Program, ground-level emissions from ABL flight-testing activities at Vandenberg Air Force Base would result from missile set-up, missile launch and debris recovery activities. The estimated annual emissions from ABL flight tests were identified as, "short-term, negligible increases...that would not delay regional progress toward attainment of any air quality standard... would not exceed the <u>de minimus</u> threshold of any regional air basin". The SEIS states, "Debris management activities (i.e., debris boat and range clearance/biological monitoring aircraft operations) would result in short-term air quality

impacts. Total emissions from debris management activities include 0.49 ton of volatile organic compounds (VOCs), and 4.52 tons of nitrogen oxides (NOX), and 0.22 ton of particulate matter equal to or less than 10 microns in diameter (PM10). Emissions associated with debris management activities would not adversely affect compliance with the California Ambient Air Quality Standards or National Ambient Air Quality Standards. No significant impacts to air quality are anticipated." VAFB's EA states, "Because debris boat operations would be permitted in accordance with SBCAPCD Rule 201 and there are no adverse air quality impacts under the Proposed Action, management measures are not required."

With the proposed revisions to Rule 202, there is a potential that all 5 tons may be emitted on one day, thereby exceeding SBCAPCD's daily thresholds of significance. However, the 2007 CAP (Section 6.2.3) has a specific growth allowance for the VAFB ABL program (with the condition that a portion of the emissions from the ABL Mission be offset by withdrawing Emission Reduction Credits (ERCs) from the VAFB Source Register. As documented in Table 6-2 of the 2007 CAP (page 6-4) 126 lbs/day of NOx and 131 lbs/day of ROC were added to the 2004 CAP just for ABL emissions. All the exempt new emissions from the ABL have either been accounted for in the CAP or will be counted towards VAFB's offset liability. Therefore, no potentially significant impacts to air quality will result from the new ABL exemption in Rule 202.

The APCD will be the lead agency or responsible agency under CEQA for each individual, discretionary permit decision subject to these rules, including any discretionary permits associated with ABL activities on VAFB. If the ABL activity is "exempt" from APCD permit, then no offsets will be required. If an APCD permit decision is required, the impacts will be addressed and emissions will be offset at that time.

The proposed Rule 333 prohibits the use of anhydrous ammonia unless case specific analysis indicates that the use is acceptable to the Control Officer. Anhydrous ammonia is a hazardous substance and its transport, use, disposal and the potential of risk of upset or accidental release is considered a potentially significant impact. Post combustion treatment processes (such as SCR) that require the use of a catalyst can result in excess release of heavy metals such as vanadium pentoxide. Spent SCR catalysts were also considered a significant hazardous waste impact in previous environmental documents.

Anhydrous ammonia is a gas that is maintained in a liquid state through pressurization of the handling and storage systems. When spilled, anhydrous ammonia will vaporize, releasing ammonia vapors to the surrounding atmosphere. In past environmental impact reports, the risks associated with the transportation and handling of anhydrous ammonia was considered a Class I impact due to the potential for a massive release of ammonia gas during transportation and storage of bulk quantities of anhydrous ammonia. The probability of a spill for a single large facility was estimated to be one in 10,000 and the probability of a spill resulting from adopting a Plan that allowed the use of anhydrous ammonia was considered to be significantly higher. (See 1989 AQAP EIR, page 4-28).

More recent analysis has shown that the risks associated with the use of SCR using anhydrous ammonia are much lower than originally analyzed and are within acceptable limits. In particular, a Quantitative Risk Analysis (QRA) was prepared specifically for Arguello Inc., PXP

Platform Harvest SCR and ERC Project in March 2005 and incorporated into the Mitigated Negative Declaration prepared for the project (ATC 11246 and Decision of Issuance 0035).

The QRA provides details of the operation and platform safety systems, fire detection and suppression systems, emergency power and lighting, communication facilities, escape and life-saving equipment. The analysis developed nine hazard scenarios for the Platform Harvest SCR system; estimated failure rates, toxic hazard consequences for each of the scenarios and interpreted the results of the risk analysis for their level of acceptability. The analysis covers toxic hazards only. This is because ammonia has a very narrow flammability range and fire/explosion consequences are minor when compared to ammonia toxicity hazards. The results of the QRA showed that the "societal risk," which is the likelihood that any person will be injured or suffer a fatality, is negligible and therefore falls well within the acceptable area of the County of Santa Barbara's established Public Safety thresholds of significance for CEQA documents. Therefore, the public safety hazard impact was found to be insignificant.

Therefore, allowing the Control Officer to permit the use of anhydrous ammonia in SCR where the risk analysis shows no significant risk, as proposed in the proposed Rule 333 does not present a significant adverse impact.

**Significance criteria or thresholds:** A proposed project will not have a significant air quality effect on the environment, if <u>operation</u> of the project will:

- emit (from all project sources, both stationary and mobile) less than the daily trigger for offsets or Air Quality Impact Analysis set in the APCD New Source Review Rule<sup>1</sup>, for any pollutant (i.e., 240 pounds/day for ROC and NO<sub>x</sub>; and 80 lbs/day for PM<sub>10</sub>. There is no daily operational threshold for CO and SOx; they are attainment pollutants); and
- emit less than 25 pounds per day of NO<sub>x</sub> or ROC from motor vehicle trips only; and
- not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone); and
- not exceed the APCD significant health risk thresholds adopted by the APCD Board of Directors; and
- be consistent with the adopted federal and state air quality plans for Santa Barbara County.

# **Impact Discussion:**

a), b) and c): The County is in nonattainment for the state ambient ozone standard any significant increase in NOx or ROC (precursors to ozone) as a result of the rule revision will contribute to an existing ozone standard violation. The APCD estimates that the NOx emission reduction from the revised rules will be 6.5 tons per year. This is consistent with the 2007 Clean Air Plan. Therefore, cumulative impacts will be insignificant.

<sup>&</sup>lt;sup>1</sup> The APCD New Source Review Rule as it existed at the time the APCD Environmental Review Guidelines were adopted (in October, 1995).

- d) There will be no increase in vehicles due to the direct or indirect implementation of these rule revisions. The County has been in attainment for CO for many years and "hotspots" analyses are no longer required.
- e) If there are sensitive receptors or substantial numbers of people near the location of a future project subject to these rule revisions, all public health risk impacts will be mitigated, through the air district permit process, to a level of insignificance.
- f) The direct or indirect implementation of these rule revisions will not result in new sources of odor at the individual project sites which would affect a substantial number of people. Therefore, no new odor impacts will occur.
- g) The direct or indirect implementation of these rule revisions are not expected to increase emissions of CO2 and other greenhouse gases, however, no quantification of the major greenhouse gases was done in any of the previous environmental documents on which this analysis relies on (see References section). The 2007 Clean Air Plan SEIR states, in the Cumulative Impacts section, "...since no increase in carbon dioxide or other greenhouse gas emissions is expected to occur, cumulative impacts on global warming and climate change are also expected to be insignificant."

# **Mitigation and Residual Impact:**

To minimize effects from the use of SCR and NSCR, the APCD will ensure that the systems are properly maintained and operated as required in the 2007 CAP SEIR (in accordance with the Mitigation Monitoring Plan in the 1991 AQAP EIR). The APCD is required to notify the appropriate agencies as part of the permit and compliance process. This notification was extended to include appropriate federal agencies with jurisdiction over the OCS when the 1994 CAP was adopted.

The APCD will be the lead agency or responsible agency under CEQA for each individual, discretionary permit decision subject to these rules. If there are potentially significant air quality impacts due to the permit decision, the impacts will be addressed and mitigated or offset at that time. No additional mitigation is required at this time, and residual air quality impacts will be insignificant.

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have an adverse impact, either directly or through habitat modifications, any endangered, rare, or threatened species, as listed in Title 14 of the California Code of Regulations (sections 670.2 or 670.5) or in Title 50, Code of Federal				

Regulations (sections 17.11 or 17.12)?	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
b) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
c) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
d) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
e) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				
f) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				
g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?				

**Impact Discussion:** In analyzing the effects of the control measures on biological resources, the 1991 AQAP EIR refers to the **sections** on Air Quality Impacts (4.1.2), Water Resources Impacts (4.3.2), Noise/Nuisance Impacts (4.5.2), Risk of Upset Impacts (4.6.2) and Hazardous Waste

Impacts (4.10.2). The impacts were generally classified potentially significant but mitigable to levels of insignificance. The proposed project consists of air district rule revisions to the provisions to obtain air district permits (ATC and PTO) for diesel-powered internal combustion engines. The APCD will be the lead agency or responsible agency under CEQA for any individual permit decision subject to these rules. If there are significant, specific biological impacts due to the permit decision, the impacts will be addressed at that time. The adoption, direct or indirect implementation of these rule revisions in general, will not result in new physical development therefore, direct biological impacts will not occur and cumulative impacts to biological resources will not be significant.

**Mitigation and Residual Impact:** No mitigation is required at this time. Residual impacts are insignificant.

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact	
V. CULTURAL RESOURCES – Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource?					
b) Cause a substantial adverse change in the significance of unique archaeological resources (i.e., an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it contains information needed to answer important scientific research questions, has a special and particular quality such as being the oldest or best available example of its type, or is directly associated with a scientifically recognized important prehistoric or historic event or person)?					
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?					
d) Disturb any human remains, including those interred outside of formal cemeteries?					

**Impact Discussion:** The proposed project consists of air district rule revisions to the provisions to obtain air district permits (ATC and PTO) for diesel-powered internal combustion engines. The APCD will be the lead agency or responsible agency under CEQA for any individual permit decision subject to these rules. If there are significant cultural resource impacts due to the permit decision, the impacts will be addressed at that time. In general, no cultural resource sites would be impacted by the direct or indirect implementation of these rule revisions.

Mitigation and Residual Impact: No mitigation is required. Residual impacts are insignificant.

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
VI. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of <i>or proximity to</i> a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
ii) Strong seismic ground shaking?				
iii) Seismic-related ground failure, including liquefaction?				
iv) Landslides?				
b) Result in substantial soil erosion or the loss of topsoil?				
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence,				

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
liquefaction or collapse?				
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?				
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				
Impact Discussion: The proposed project consists to obtain air district permits (ATC and PTO) for die The APCD will be the lead agency or responsible ag decision subject to these rules. If there are signific decision, the impacts will be addressed at that tim proposed for the direct or indirect implementation impacts are expected.	sel-powered in gency under C cant geologica e. In general,	nternal comb EQA for any I impacts due I no grading o	oustion engion individual pose to the perror or earth move	nes. ermit nit
Mitigation and Residual Impact: No mitigation re	quired. Residi	ual impacts a	ire insignific	ant.
	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
VII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials				

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
into the environment?		J		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				

**Impact Discussion:** Hazardous wastes generated would include spent SCR and NSCR catalysts. California law currently requires the proper handling, transportation and disposal of hazardous wastes. The 1991 AQAP EIR encouraged waste minimization practices such as regeneration and recycling.

The proposed project consists of air district rule revisions to the provisions to obtain air district permits (ATC and PTO) for diesel-powered internal combustion engines. With the proposed revision to Rule 333 which will subject any project using anhydrous ammonia to APCO approval

(and close scrutiny of the transportation and disposal of this chemical), in order to avoid new hazards.

The APCD will be the lead agency or responsible agency under CEQA for any individual permit decision subject to these rules. If there are significant hazards or hazardous materials impacts due to the permit decision, the impacts will be addressed at that time.

**Mitigation Measures:** In accordance with the MMP in the 1991 AQAP EIR, the APCD is required to notify the appropriate agencies of the potential hazardous waste generation as part of the permit and compliance process. This notification was extended to include appropriate federal agencies with jurisdiction over the OCS when the 1994 CAP was adopted. Residual Impacts will be insignificant.

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impac
VIII. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?				
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems?					
f) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?					
g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?					
h) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?					
i) Inundation by seiche, tsunami, or mudflow?					
<b>mpact Discussion:</b> The proposed project consists of air district rule revisions to the provisions to obtain air district permits (ATC and PTO) for diesel-powered internal combustion engines. Ground and surface water could become contaminated by materials such as aqueous ammonia which is usually used as a substitute for anhydrous ammonia. With the proposed revision to Rule 333 which will subject any project using anhydrous ammonia to APCO approval (and close scrutiny of disposal of this chemical), in order to avoid adverse impacts. In general, there will be no new water use or water quality impacts due to the direct or indirect implementation of the rule revisions.					
Mitigation and Residual Impact: No mitigation is r	equired.				
	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact	

IX. LAND USE AND PLANNING – Would the project:

a) Physically divide an established community?	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?				
<b>Impact Discussion:</b> The proposed project, which any change in existing land use.	h is an air distri	ct rules revisio	on, will not r	esult in
Mitigation and Residual Impact: No mitigation insignificant.	is required. Re	esidual impact:	s will be	
	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
X. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?				
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				

**Impact Discussion:** The proposed project would not involve any change in the existing local mining practices. There will be no impact to mineral resources resulting from the approval of this project, which consists of air district rule revisions.

**Mitigation and Residual Impact:** No mitigation is required. Residual impacts will be insignificant.

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
XI. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?				
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				

**Impact Discussion:** The proposed project consists of air district rule revisions to the provisions to obtain air district permits (ATC and PTO) for diesel-powered internal combustion engines. The APCD will be the lead agency or responsible agency under CEQA for any individual permit decision subject to these rules. If there are significant new noise impacts due to the permit decision, the impacts will be addressed at that time. In general, no new noise generation is proposed for the direct or indirect implementation of these rule revisions, therefore, no impacts are expected.

<b>Mitigation and Residual Impact:</b> No additional rinsignificant.	nitigation is re	quired. Resio	lual impacts	will be
	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
XII. POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				
Impact Discussion: The proposed project will no employees, nor will it involve growth in current proposed is no impact to population and housing anticipate	opulation or d	_		e, there
Mitigation and Residual Impact: No mitigation i	s required.			
	Potentially Significant Impact	Less than significant with	Less than significant	No Impact

mitigation

# XIII. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:		J		
Fire protection?				
Police protection?				
Schools?				
Parks?				
Other public facilities?				
Impact Discussion: The proposed project consist to obtain air district permits (ATC and PTO) for did The APCD will be the lead agency or responsible a decision subject to these rules. If there are significated decision, the impacts will be addressed at that tin implementation of the proposed project will not a or emergency service response agencies.  Mitigation and Residual Impact: No mitigation is	esel-powered i agency under C icant public ser ne. In general affect any of th	nternal comb EQA for any vices impact , the direct o e public serv	oustion engion individual pos s due to the r indirect rices includir	nes. ermit permit ng fire,
	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
XIV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				
<b>Impact Discussion:</b> The proposed project will not does it involve the construction of recreational far anticipated.				
Mitigation and Residual Impact: No mitigation is	s required. Re	sidual impact	s are insigni	ficant.
	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
XV. TRANSPORTATION/TRAFFIC – Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	, ——			
b) Exceed, either individually or cumulatively, as level of service standard established by the count congestion management agency for designated roads or highways?	у			
c) Result in a change in traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				
d) Substantially increase hazards <i>due</i> to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm				

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
equipment)?				
e) Result in inadequate emergency access?				
f) Result in inadequate parking capacity?				
g) Conflict with adopted policies supporting alternative transportation modes (e.g., bus turnouts, bicycle racks)?				
Impact Discussion: The proposed project consists to obtain air district permits (ATC and PTO) for die The APCD will be the lead agency or responsible a decision subject to these rules. If there are significant the permit decision, the impacts will be addressed traffic is proposed for the direct or indirect implement adverse impacts on traffic or transportation with Mitigation and Residual Impact: No mitigation is insignificant.	esel-powered in gency under Cl cant transporta d at that time. mentation of th ill occur.	nternal comb EQA for any lation or traff In general, r lese rule revi	oustion engion individual polic impacts d no increase isions, there	nes. ermit ue to in
	Potentially Significant	Less than significant	Less than	No
	Impact	with mitigation	significant	Impact
XVI. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which				

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
could cause significant environmental effects?		Ü		
d) Are sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				
e) Has the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				
f) Is the project served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				
g) Comply with federal, state, and local statutes and regulations related to solid waste?				

**Impact Discussion:** The proposed project consists of air district rule revisions to the provisions to obtain air district permits (ATC and PTO) for diesel-powered internal combustion engines. The APCD will be the lead agency or responsible agency under CEQA for any individual permit decision subject to these rules. If there are significant impacts to wastewater treatment or solid waste disposal due to the permit decision, the impacts will be addressed at that time. In general, no waste water or solid waste will be generated by the direct or indirect implementation of these rule revisions, therefore, no impacts are expected.

**Mitigation and Residual Impact:** No mitigation is required.

	Potentially Significant Impact	Less than significant with mitigation	Less than significant	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				

# **XVIII MITIGATION MONITORING PLAN**

No potentially significant, adverse air quality impact has been identified in this document. The ATC permit document for all future projects, subject to the provisions of Rules 102, 201,202 and 333, will include conditions to be implemented and incorporated into the project which will be enforced by the APCD. Therefore, no additional mitigation measures have been identified and no additional mitigation monitoring plan is necessary.

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- 3. Santa Barbara County Air Pollution Control District, 2004. 2004 Clean Air Plan and Supplemental Environmental Impact Report (APCD-2004-SEIR-01, SCH No. 1991031045).
- 4. Santa Barbara County Air Pollution Control District, 2001. 2001 Clean Air Plan and Supplemental Environmental Impact Report (APCD-2001-SEIR-01, SCH No. 1991031045).
- 5. Santa Barbara County Air Pollution Control District, 2001. Proposed Amendments to Rule 323 Architectural Coatings Tiered Environmental Impact Report, SCH No.: 2001051120
- 6. California Air Resources Board (ARB) 1989 Suggested Control Measure (SCM) Final Program EIR, June 22, 2000
- 7. Santa Barbara County Air Pollution Control District, December 1998. 1998 Clean Air Plan for Attainment of the State and Federal Ozone Standard in Santa Barbara County.
- 8. Santa Barbara County Air Pollution Control District, 1998. Mitigated Negative Declaration for the 1998 Clean Air Plan (APCD-98-ND-01).
- 9. Santa Barbara County Air Pollution Control District, November 1994. 1994 Clean Air Plan.
- 10. Santa Barbara County Air Pollution Control District, 1994. Supplemental Environmental Impact Report for the 1994 Clean Air Plan (94-SD-3).
- 11. Santa Barbara County Air Pollution Control District and Santa Barbara County Association of Governments, 1993. 1993 Rate-of-Progress Plan, Federal Ozone Standard Countywide.
- 12. Santa Barbara County Air Pollution Control District, September 1993. Environmental Impact Report for the 1993 Rate-of-Progress Plan.
- 13. Santa Barbara County Air Pollution Control District, December 1991. 1991 Air Quality Attainment Plan: State Ozone Standard Countywide.
- 14. Santa Barbara County Air Pollution Control District, December 1991. Final Environmental Impact Report for the 1991 Santa Barbara County Air Quality Attainment Plan. State

- Clearinghouse Number 91031045; County Document No. 91-EIR-4. Prepared by Jacobs Engineering Group.
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- 16. Santa Barbara County Air Pollution Control District, May 1990. Final Environmental Impact Report for the 1989 Air Quality Attainment Plan. State Clearinghouse No. 89012511; Santa Barbara County # 89-EIR-9
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- Santa Barbara County Air Pollution Control District, 1993. 1992 Annual Air Quality Report.
- 19. Santa Barbara County Air Pollution Control District, November 22, 1991. Final EIR for District Rule 333, Control of Emissions from Reciprocating Internal Combustion Engines. State Clearinghouse No. 91031045; County Document No. 91-EIR-4.
- 20. Santa Barbara County Air Pollution Control District, April 20, 2006. Final Negative Declaration for Arguello Inc., PXP Platform Harvest SCR and ERC Project, Authority to Construct No. 11246 and Decision of Issuance No. 0035
- 21. United States Department of Defense Missile Defense Agency, 1997. Final Environmental Impact Statement for the Program Definition and Risk Reduction Phase of the Air Borne Laser Program.
- 22. United States Department of Defense Missile Defense Agency, 2003. Supplemental Environmental Impact Statement for the Air Borne Laser Program, Record of Decision and FONSI.
- 23. Vandenberg Air Force Base, CA, 2007. Environmental Assessment Air Borne Laser Debris Management.

#### APPENDIX A: PROPOSED RULE REVISIONS

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, and 5/20/1999, 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.

[...]

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

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

[...]

**"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.

"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).

[...]

**"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.

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**"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.

**"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.

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"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."

"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.

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**"Portable iInternal eCombustion eEngine"** 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.

"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.

[...]

"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.

[...]

"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
- 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.

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RULE 201. PERMITS REQUIRED. (Adopted 10/18/1971, revised 5/1/1972, readopted 10/23/1978, revised 7/2/1979, 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

- 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.
- 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.

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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 Rulerule, any:

- 1. <u>eEquipment</u>, 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.

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#### 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.

[...]

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:

 $[\ldots]$ 

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).

[...]

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.

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- 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.
- 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.

- 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).

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# F. Internal Combustion Engines

- 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 <u>rated</u> brake horsepower of <u>less than 50 or less</u>. <u>No compression ignition engine otherwise subject to permit shall be exempt because it has been derated.</u>
  - 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.

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.

- 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).
- 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.
- 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.
- 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.
- 54. 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.
- 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.

- 76. 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.
- A permit shall not be required for Notwithstanding any exemption in these rules and regulations, <u>7.</u> 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 vear 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.
- 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.

# **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:
  - 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 <u>fuel listed above in a</u>, b, or c-listed above in this paragraph. No combustion equipment otherwise subject to permit shall be exempt because it has been derated.

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 Rulerule, 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.

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# 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.

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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.

[...]

# 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.

[...]

#### 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.

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- 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.

[...]

# 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.

[...]

#### **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.

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

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

#### A. Applicability

1.—The provisions of this rule <u>shall</u> apply to <u>all any</u> engines 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.

# B. Exemptions

- 1. Notwithstanding A.1., tThe requirements of this Rrule shall not apply to:
  - a. EnginesSpark 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 measures the volumes (ft³ cubic feet) of landfill gas used and a separate fuel meter for the volume (ft²) 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:

Volume in ft<sup>3</sup> <u>cubic feet</u> of landfill gas consumed annually x

100

Percent of Fuel use Landfill Gas Percentage -=

Total Volume in ft<sup>3</sup> <u>cubic feet</u> of <u>all gas gaseous fuel</u> consumed annually

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

- b. Engines that are exempt from permit under the provisions of Rules 202, Exemptions to Rule 201.
  - 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.
- 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.
- 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 schedules for these provisions specified 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.
- 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.

#### C. Definitions

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

- "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.
- **'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.
- "Cyclically-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 pumping unit including beambalanced or crank-balanced pumps. Engines powering air-balanced pumps are noncyclically-loaded engines.
- 1. "Engine" means any spark or compression <u>ignited ignition</u> 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.
- 3. "Noncyclic engine" means any engine which is not a cyclic engine.

"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.

- 4. "Existing engine" means an engine which that by December 3, 1991 [date of revised rule adoption];
  - <u>a1</u>. has been issued a valid <u>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</u>
  - b2. has been identified in an application for an ATC Authority to Construct submitted to and deemed complete by the District; or
  - e3. 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].
- 5. "New engine" is an engine which is not an existing engine.
- 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).
- **"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.
- 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 42 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.

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

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

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

10. "Rich-burn Eengine" 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 42 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.

- 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.
- "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.
- "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.
- 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.

- 2. Each engine shall be equipped with a nonresettable elapsed operating time meter and the meter shall be maintained in proper operating condition.
  - 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.
  - 4. Engines in the following category shall be equipped with a continuous oxides of nitrogen, carbon monoxide, and oxygen monitoring system approved by the Control Officer pursuant to an Authority to Construct:

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 and carbon monoxide 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.

# **<u>PE</u>**. 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  $\frac{IK}{E}$ :

- 1. Noncyclic Rich-Burn Noncyclically-Loaded Spark Ignition Engines
  - a. <u>The emission concentrations, corrected for oxygen, from any such engine Rich burn</u> noncyclic engines-shall not exceed the following eoncentration-limits-corrected for oxygen:

#### Limit (ppmVppmv at 15 percent oxygen)

Pollutant	15% Oxygen	3% Oxygen
NOx	50	<del>152</del>
ROC	250	<del>758</del>
CO	4,500	<del>13,653</del>

- 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.
- 2. Noncyclic Lean-Lean-Burn Spark Ignition Engines
  - a. <u>The emission concentrations, corrected for oxygen, from any such engine Lean burn noncyclic engines</u> 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:

## Limit (ppmv at 15 percent oxygen)

#### **Pollutant**

<u>NOx</u>	<u>200</u>
ROC	<u>750</u>
CO	4,500

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

#### Limit (ppmVppmv at 15 percent oxygen)

Pollutant	15% Oxygen	<del>3% Oxygen</del>		
NOx	125	<del>380</del>		
ROC	750	<del>2<u>,</u>275</del>		
CO	4 <u>.</u> 500	<del>13,653</del>		

- 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.
- 3. Cyclic-Rich-Burn Cyclically-Loaded Spark Ignition Engines
  - 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 (ppmVppmv at 15 percent oxygen)

Pollutant	15% Oxygen	3% Oxygen		
NOx	<del>50</del> 300	<del>-152</del>		
ROC	250	<del>758</del>		
CO	4,500	<del>13,653</del>		

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

e. 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.

#### 4. Compression Ignition Engines and Dual-Fuel Engines

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:

# Limit (ppmVppmv at 15 percent oxygen)

Pollutant	15% Oxygen	3% Oxygen		
NOx ROC	<del>797</del> 700 750	<del>2,400</del>		
<u>CO</u>	<u>4,500</u>			

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.

# 5. Alternative Emission Control Plan (AECP)

An owner or operator of any existing engine subject to this rule may meet the NO<sub>x</sub> 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.	<ul> <li>Include all information determined by the Control Officer as necessary to confirm that the requirements of this section will be met.</li> </ul>
	•
<del>b.</del>	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.
e.	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 sl 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.
<del>d.</del>	Specify NO <sub>*</sub> , ROC and CO ppmv emission limits for each engine. NO <sub>*</sub> 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 Section
	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.
е.	Calculate the uncontrolled emission factor for engines 20 to 49 horsepower by measuring
	the NO <sub>x</sub> emissions in accordance with Section G. (except the test shall be conducted for 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. To controlled emission rate shall be calculated using the controlled engine NO <sub>*</sub> ppmv limit:
	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.e for engines 20 to 49 horsepower.
g.	Provide that emission reductions for any engine required under Regulation VIII shall not
Ü	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 we the required pollution reductions.
i.	Exempt from the requirements of Section G and D.5.h., any 20 to 49 horsepower engine
	whose control is not required to meet the obligations established under Section D.5.e.  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
<del>j.</del>	Insure compliance with all other provisions of this rule, including but not limited to D.3.
	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 a

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.

65. The use of anhydrous ammonia to meet the requirements of this rule is prohibited <u>unless case-specific analysis indicates that the use is acceptable to the Control Officer.</u>

# **EF.** Requirements - Owner or Operator Engine Inspections and Maintenance Plan

All-Any engines subject to the requirements of Section D-E shall be inspected by the engine owner or operator in accordance with a 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.
- 2. Such plan shall list List all engines by engine classification, identified as either cyclics (rich-burn noncyclically-loaded spark ignition, rich-burn cyclically-loaded spark ignition, lean-burn spark ignition, and noncyclicscompression 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 DE.
- 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.
- A portable NOx-emissions analyzer or any other method approved by the Control Officer shall be 4<u>3</u>. 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. An 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-ofcompliance 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 values 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).

The <u>results and instrument</u>-readings for each <u>engine and control equipment operating parameter</u> identified in the <u>inspection plan</u> 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 <u>initials name</u> of the person recording the <u>measurement information</u> shall be recorded <u>on in an inspection log consistent with the recordkeeping provisions specified in Section J.1.</u>

 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.

# **FG.** Requirements - Compliance Plan

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 planPlan. 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:

- 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
- 2. <u>List</u> manufacturer-tested typical emission rates or source test values, if available <u>or documentation</u> showing existing emissions of oxides of nitrogen, reactive organic compounds, and carbon <u>monoxide</u>; and
- 3. List the applicable emission limits.
- 34. <u>List</u> 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.
- 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.
- 46. List of all existing and operating engines planned for shutdown or electrification and the proposed date of shutdown or electrification.

An owner or operator may modify a compliance Compliance plan by submitting a modified plan 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.

#### H. [Reserved]

# **GI.** Requirements - Source Testing

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

- 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 DE. SThese source tests shall be performed within 30 ealendar-days of the anniversary date of the initial source test, unless the Control Officer approves a period longer than thirty (30) ealendar-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.
- 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 planshall be obtained prior to the start of a source test. The approved pPlan shall be on-filed with the District at least thirty (30) calendar days before the start of each source testing. 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 for those parameters specified in the Engine Inspection and Maintenance Plan described in Section F.
  - 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.
- 3. e. Source testing shall be performed by a source test contractor certified by the California Air Resources Board. <u>District required Ssource</u> testing shall not be performed by a source owner or operator unless approved by the Control Officer.
- 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.
- 5. d. The owner or operator of For any engine which that is found not to be in compliance with Section DE: as a result of source testing, shall comply with the following shall apply:
  - <u>a.</u> <u>i. A rR</u>epeat <u>a source test shall be performed</u> to demonstrate compliance with Section <u>D.E</u> 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 in 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.

- 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 GI.1.
- 37. Test Methods
  - a. Source testing shall be performed in accordance with the following procedures:

NOx, CO, O2: CARB Method 1-100

ROC: EPA Method 18 or EPA Method 25

- 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.
- 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.
- 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.
- 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.
- <u>vii.</u> Determination of the Fuel Composition and Higher Heating Value: The following applicable standards developed by the ASTM International: ASTM Method
  - 1) ASTM D-1945-8103, "Standard Test Method for Analysis of Natural Gas by Gas Chromatography," ASTM International,
  - 2) ASTM Method-D- 3588-8198 (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.

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

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

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.

# **HJ**. 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:
  - 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.
- b. <u>hH</u>ours of operation, as determined by a nonresettable elapsed operating time meter, each month for each engine since the last inspection;.
  - b)c. ILocation 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.
  - e)d. a-A summary of any maintenance performed on an emission control device;
  - <u>d)e.</u> <u>a-A</u> summary of any maintenance performed on an engine <u>which-that</u> affects the emission control device.; and,
  - e)f. the oObservations made in during each monthly or quarterly inspection, pursuant to the requirements of Section E-F.3.
  - g. Date of each log entry and the printed or typed name of the person entering the log information.
- 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.
  - Copies of all engine Engine Operation, 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.
  - 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 dualfuel), make, model, and serial number or the owner's or operator's unique identification number.
    - 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.
    - c. Location of operation of the engine.
    - Date of each log entry and the printed or typed name of the person entering the log information.

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.

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.

#### <u>ΙΚ</u>.

#### **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.

- 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.
  - e. 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.

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].

#### **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.
- 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.
- 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;

# i. by [six months from the date of revised rule adoption]:

- submit a new/revised Engine Inspection and Maintenance Plan for the
   Control Officer's approval pursuant to Section F. Any previously
   approved Engine Inspection and Maintenance Plan will continue to be in
   force until the Control Officer approves a revised plan; and
- 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.

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

Engine Type	<u>Category</u> <u>Number</u>	April 17, 1997 Adopted Rule 333 NOx Limits		[Date of Revised Rule Adoption] Adopted Rule 333 NOx Limits		Effect of Change
		<u>%</u> <u>Contro</u> <u>1</u>	ppmv (at 15% O2)	% Contr ol	ppmv (at 15% O2)	
Rich-Burn Noncyclically- Loaded Spark Ignition Engines	1	<u>90</u>	<u>50</u>	<u>90</u>	<u>50</u>	No change
Lean-Burn Spark Ignition Engines in the 50 to less than 100 bhp Range	<u>2</u>	<u>80</u>	<u>125</u>	11	<u>200</u>	Increased emission limit
Lean-Burn Spark Ignition Engines Rated 100 bhp or Greater	<u>3</u>	<u>80</u>	<u>125</u>	<u>80</u>	<u>125</u>	No change
Rich-Burn Cyclically-Loaded Spark Ignition Engines	<u>4</u>	<u>90</u>	<u>50</u>	-14	<u>300</u>	Increased emission limit
Compression Ignition Engines and Dual-Fuel Engines	<u>5</u>	=	<u>797</u>	<u>40</u>	<u>700</u>	Decreased emission limit

<u>Table 2: Summarized Reactive Organic Compound and Carbon Monoxide</u> <u>Emission Limit Changes Resulting from the [date of revised rule adoption]</u> 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
		<b>ROC</b>	<u>CO</u>	<b>ROC</b>	<u>CO</u>	
Rich-Burn Noncyclically- Loaded Spark Ignition Engines	1	<u>250</u>	<u>4,500</u>	<u>250</u>	<u>4,500</u>	No change
Lean-Burn Spark Ignition Engines in the 50 to less than 100 bhp Range	2	<u>750</u>	<u>4,500</u>	<u>750</u>	<u>4,500</u>	No change
<u>Lean-Burn Spark Ignition</u> <u>Engines Rated 100 bhp or</u> <u>Greater</u>	<u>3</u>	<u>750</u>	<u>4,500</u>	<u>750</u>	<u>4,500</u>	No change
Rich-Burn Cyclically-Loaded Spark Ignition Engines	<u>4</u>	<u>250</u>	4,500	<u>250</u>	4,500	No change
Compression Ignition Engines and Dual-Fuel Engines	<u>5</u>	Ξ		<u>750</u>	<u>4,500</u>	New emission limits