NORTH COAST UNIFIED
AIR QUALITY MANAGEMENT DISTRICT
2300 Myrtle Avenue, Eureka, CA 95501
Phone: (707)443-3093 · Fax: (707) 443-3099

TITLE V FEDERAL OPERATING PERMIT
NCUAQMD PERMIT TO OPERATE
AND
FINAL DETERMINATION OF COMPLIANCE

ATC PERMIT NO: 443-1

ISSUED TO:
Pacific Gas & Electric
1000 King Salmon Avenue
Eureka, CA 95503

PLANT SITE LOCATION:
Humboldt Bay Power Plant
1000 King Salmon Avenue
Eureka, CA

1st PERMIT ISSUED:
April 14, 2008

PERMIT EXPIRES:
See General Conditions

PERMIT HISTORY:

September 29, 2006	AFC
October 24, 2007	PDOC

RESPONSIBLE OFFICIAL:
Roy B. Willis
Plant Manager, HBPP Fossil
(707) 444-0700

CONTACT PERSON:
Terry Williams
Environmental Coordinator
(707) 444-0760

NATURE OF BUSINESS:
Commercial Electricity Generation

STANDARD INDUSTRIAL CLASSIFICATION (SIC):
4911

Contents

PERMIT SUMMARY

This permit shall serve as a conditional Authority to Construct and temporary Permit to Operate, as well as the Prevention of Significant Deterioration pre-construction permit pursuant to North Coast Unified Air Quality Management (NCUAQMD) Rules and Regulations. Requirements identified in the permit as "Local Enforceable Only" are not enforceable by U.S. EPA, however, they are enforceable by the California Air Resources Board (CARB) and by the NCUAQMD.

The application for this air quality Authority to Construct and Temporary Permit to Operate has been evaluated for compliance with Federal, State, and NCUAQMD air quality rules and regulations. The following listed rules are the major rules that were found to be applicable at the time of this permit review, and based on the information submitted with the Title V permit application.

Federally Enforceable Rules & Regulations

Citation	Description	Rule Adoption Date
Rule 200	Permit Requirements	9-26-1997
Rule 220	New Source Review Standards	9-25-1998
Rule 230	Action on Applications	9-25-1998
Rule 240	Permit to Operate	9-26-1997
Rule 400	General Limitations	8-02-1978
Rule 410	Visible Emissions	3-5-1992
Rule 420	Particulate Matter	3-5-1992
Rule 430	Fugitive Dust	3-5-1992
Rule 440	Sulfur Oxide Emissions	3-5-1992
Rule 490	Federal New Source Performance Standards (NSPS)	9-27-1984
Reg 5 Rule 400	Procedures for Issuing Permits to Operate to Sources Subject to Title V of the Federal Clean Air Act Amendments of 1990	5-18-2001
NSPS	40 CFR 60 Subpart IIII	Promulgated 07-11-2006
NESHAP	40 CFR 63 Subpart ZZZZ	Promulgated 06-15-2004

Non-Federally Enforceable Rules & Regulations

Citation	Description	Recodified Rule Adoption Date
Regulation I, Rule 102	Permits	May 19, 2005
Regulation I, Rule 110	New Source Review Standards	May 19, 2005
Regulation I, Rule 103	Action on Applications	May 19, 2005
Regulation I, Rule 104.2	Visible Emissions	May 19, 2005

Regulation I, Rule 104.3	Particulate Matter	May 19, 2005
Regulation I, Rule 104.4	Fugitive Dust	May 19, 2005
Regulation I, Rule 104.5	Sulfur Oxide Emissions	May 19, 2005
Regulation I, Rule 104.11	Federal New Source Performance Standards (NSPS)	May 19, 2005
Regulation IV, Rule 400	Stationary Source Permit Fees	May 19, 2005
Regulation IV, Rule 406	Title V Fees	May 19, 2005
Regulation IV, Rule 407	Air Toxic "Hot Spots" (AB2588) Fees	May 19, 2005
Regulation IV, Rule 412	Major Source Assessment	May 19, 2005
Regulation V	Procedures for Issuing Permits to Operate for Sources Subject to Title V	May 19, 2005

Future changes in prohibitory rules may establish more stringent requirements that may, at the NCUAQMD level, supersede the conditions listed here. For Title V purposes, however, the federally enforceable requirements are those found in the Title V permit. Federally enforceable provisions of the Title V permit do not change until the Title V permit is revised.

RULES & REGULATIONS RECODIFICATION, EFFECT ON PERMIT

The NCUAQMD Rules and Regulations have been recodified, renumbered, and reorganized; and are in the process of being incorporated into the NCUAQMD State Implementation Plan. Once incorporated, the new regulatory references which are the same or similar to the then-superceded NCUAQMD rule citations, shall apply. The NCUAQMD reserves the right to revise the Title V permit to include the updated regulatory references.

FACILITY DESCRIPTION

PERMIT HISTORY

Application for Certification	September 29, 2006
PDOC	October 24, 2007
FDOC	April 8, 2008

EQUIPMENT DESCRIPTION

The plant will consist of ten Wärtsilä 18V50DF16.3 MW lean-burn reciprocating engines, equipped with selective catalytic reduction (SCR), oxidation catalyst, and associated support equipment including continuous emissions monitors. The primary fuel will be natural gas with diesel pilot injection, and the backup fuel will be diesel. The applicant will also install a diesel-fired emergency back-up generator and a diesel-fired fire pump. PG&E has identified and will be providing offsets for the project.

The NCUAQMD issued a Preliminary Determination of Compliance on October 24th

2007 and accepted public comment for 30 days pursuant to Rule 110 §8.4 through §8.6. After consideration of all comments received, the Air Pollution Control Officer has issued a Final Determination of Compliance (FDOC) pursuant to NCUAQMD Rule 110 §9.6.

PG&E currently operates a natural gas and fuel oil power plant on the same property as the proposed repower project. The existing plant consists of 2 steam turbine-generators, 52 and 53 MW, respectively, primarily fueled by natural gas, with No. 6 fuel oil used as a secondary fuel; and 2 mobile emergency power plants (MEPPs), consisting of diesel-fueled turbines that operate as backup units and peaker units. A non-operating 63 MW nuclear power plant also exists at the facility. The 52 MW boiler began operating in 1956 and the 53 MW boiler began operating in 1953. (AFC Section 1.0, pg. 1-1)

PG&E proposes to decommission the existing power plant and replace it with the ten 16.3 MW Wärtsilä reciprocating engines described above. The new engines will be subject to Best Available Control Technology (BACT) requirements as well as Prevention of Significant Deterioration (PSD).

EQUIPMENT OPERATING SCENARIOS

As a commercial power plant, market circumstances and demand will dictate the exact operation of the new reciprocating engines. However, the following general operating modes are projected to occur.

Base Load – The facility may be operated at maximum continuous output for as many hours per year as scheduled by load dispatch, and limited by operational constraints of the permit to operate (75% annual capacity factor). Normal operation of the plant will occur while the reciprocating engines are fired on natural gas with a diesel pilot: Firing on natural gas with diesel pilot is defined as “Natural Gas Mode” in this Permit.

Load Following – The facility may be operated to meet variable load requirements. The generation would be adjusted periodically to the load demand primarily by increasing or decreasing the number of reciprocating engine units in operation; and secondarily by raising or lowering the output of an individual reciprocating engine. Due to the modular nature of the project configuration, partial shutdown of the engine group will occur at certain times of any given day during any given year. This mode of operation could generally be expected during late evening and early morning hours when system demand may be low. As additional generating capacity becomes available in the foreseeable future, more frequent operation in this mode is anticipated. Several alternative energy projects have recently been proposed for the area which will compliment the modular design of this project.

Full Shutdown – This would occur if forced by equipment malfunction, fuel supply interruption, transmission line disconnect, natural disaster, or market conditions. The project will be the primary source of power generation for the north coast region for the next several years. As such, full shutdown for any length of time is not anticipated.

Secondary Fuel – The facility is also subject to periodic curtailment of the natural gas supply. In such a circumstance, the reciprocating engines may be fired on liquid fuel. The engines have the capability of switching fuel types without interruption to power generation. The number of hours of liquid fuel firing is limited by the ATC permit to a maximum of 1000 operating hours per year total for all of the engine units combined. Operation of the reciprocating engines while fired on 100% liquid fuel is defined as "Diesel Mode" in this Permit. The allowable liquid fuel types are limited to CARB Diesel, CARB Diesel with additives, and Alternative Liquid Fuel.

DEFINITIONS

As used in this Permit, the terms shall have the meaning set out herein.

a. **Acfm**: actual cubic feet per minute
b. **Alternative Liquid Fuel**: An alternative diesel fuel or CARB Diesel Fuel with fuel additives that meets the requirements of the California Air Resources Board Verification Procedure, as codified in Title 13, CCR, sections 2700-2710
c. **APCO:** the NCUAQMD Air Pollution Control Officer
d. **Calendar Day**: Any continuous 24-hour period beginning at 12:00 AM or 0000 hours
e. **California Air Resources Board (CARB) Diesel Fuel**: Any diesel fuel that is 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 D975-81, "Standard Specification for Diesel Fuel Oils," as modified in May 1982, which is incorporated herein by reference, and that meets the specifications defined in Title 13 CCR, sections 2281, 2282 and 2284
f. **CAM Plan**: Compliance Assurance Monitoring Plan, as defined in 40 CFR 64
g. **CARB**: the California Air Resources Board
h. **CEC CPM**: California Energy Commission Compliance Program Manager
i. **CEMS**: Continuous Emissions Monitoring System
j. **CFR**: the Code of Federal Regulations
k. **Commencement of Onsite Construction**: the commencement of a program of significant and continuous construction at the Facility or modification of the emissions unit(s) subject to this Permit
l. **Commissioning Activities**: All testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the owner's engineer to ensure safe and reliable steady state operation of the reciprocating engines and associated electrical delivery systems
m. **Commissioning Period**: For each reciprocating engine considered separately, the time period that commences when a Reciprocating Engine is first fired. The period shall terminate when each individual reciprocating engine has successfully completed both performance and

compliance testing. The commissioning period shall not exceed 180 days under any circumstances.

n. **COMS**: Continuous Opacity Monitor

o. **Corrected Concentration**: The concentration of any pollutant (generally NO_x, CO, ROC, or NH_3) corrected to a standard stack gas oxygen concentration. For emission points S-1 through S-12, the standard stack gas oxygen concentration is 15% O_2 by volume on a dry basis

p. **Diesel Mode:** the firing of reciprocating engines S-1 through S-10 on CARB diesel, when the heat input from liquid fuel exceeds 0.8 MMBtu/hr, and when the engine operates under the theoretical Diesel cycle.

q. **Diesel Particulate Matter (DPM):** filterable particulate matter (PM) measured using EPA method 5

r. **Diesel Particulate Matter ATCM Emergency Use**: shall only pertain to engines S-11 and S-12 and shall mean providing electrical power or mechanical work during any of the following events and subject to the following conditions:

i. The failure of loss of all or part of normal electrical power service or normal gas supply to the facility which is demonstrated by the Permittee to the NCUAQMD APCO's satisfaction to have been beyond the reasonable control of the Permittee.

ii. The failure of the facility's internal power distribution system which is demonstrated by the owner or operator to the NCUAQMD APCO's satisfaction to have been beyond the reasonable control of the Permittee.

iii. The pumping of water for fire suppression or protection.

s. **NCUAQMD**: North Coast Unified Air Quality Management NCUAQMD

t. **Dscfm**: dry standard cubic feet per minute

u. **Emergency:** operation arising from a sudden and reasonably unforeseeable event beyond the control of the permittee (e.g., an act of God) which causes the excess of a limitation under this permit and requires immediate and corrective action. An "emergency" does not include noncompliance as a result of improperly designed or installed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

v. **EPA**: the United States Environmental Protection Agency

w. **Facility:** the site of the Humboldt Bay Repowering Project at HBPP

x. **Firing Hours:** Period of time during which fuel is flowing to a unit, measured in minutes divided by 60

y. **HBRP**: Humboldt Bay Repowering Project

z. **HBPP**: Existing Humboldt Bay Power Plant and applicable NCUAQMD permits.

aa. **Heat Input**: the energy (heat) input of the fuel combusted at the higher heating value (HHV) of the fuel

bb. **HHV**: Higher Heating Value

cc. **Hr**: one hour – a standard measurement of time

dd. **H_2S**: Hydrogen Sulfide

ee. **Lb**: pound – an English unit of measurement of weight and mass being equivalent to 7000 grains, 16 ounces, and 0.453 kilograms

ff. **Maintenance and Testing:** Operation of the reciprocating engines to (a) evaluate the ability of an engine or its supported equipment to perform during an emergency; or (b) facilitate the training of personnel on emergency activities; or (c) perform emissions testing, maintenance and operational testing, or safety-related testing as required by any government agency or by the manufacturer as a requirement of any law, regulation, rule, ordinance, standard, or contract

gg. **MMBtu**: million British thermal units

hh. **Natural Gas**: any mixture of gaseous hydrocarbons containing at least 80 percent methane by volume as determined by Standard Method ASTM D1945-64

ii. **Natural Gas Curtailment:** A reduction in the natural gas supply available to the Facility as specified below.

i. Curtailment directed by a regulatory agency, or automatically implemented by PG&E in accordance with procedures approved by a regulatory agency; and

ii. Curtailment cannot be related to fuel pricing (i.e., units will not be switched to Diesel fuel operation simply because gas prices are higher than Diesel prices).

jj. **Natural Gas Mode:** the firing of natural gas and CARB diesel or alternative liquid fuel in the engines where the diesel fuel or alternative liquid fuel is used solely for pilot injection, and the engine operates under the theoretical Otto cycle

kk. **NCUAQMD**: North Coast Unified Air Quality Management NCUAQMD

ll. **NFPA**: National Fire Protection Association

mm. **Normal Operations:** the operation of the Wärtsilä reciprocating engines identified in this permit, when firing in natural gas mode with diesel pilot injection, when not in startup, shutdown or malfunction mode

nn. **Notice**: unless otherwise stated, shall be in writing, sent postage prepaid, to the APCO and include all information required. Notice shall be sent to the APCO at the following address: 2300 Myrtle Ave., Eureka, CA 95501

oo. **Operational Minute:** a 60 second period when the engines are being fired. Each Operational Minute shall be designated as either “Natural Gas Mode” or “Diesel Mode”.

pp. **Operational Mode Transfer**: the switching of fuel mode while operating at engine loads greater than 50%. If the units are operated in Diesel Mode for one Operating Minute or more during any Clock Hour, the entire hour shall be considered as operation in Diesel Mode for purposes of determining compliance with emission limits. The sum of the Operational Minutes shall be used for determining compliance with hours of operation limitations

qq. **O_2**: Oxygen

rr. **Permittee:** the owner or operator identified on the Permit title page (PG&E)

ss. **PM**: Particulate Matter
tt. **Ppmvd:** parts per million, volumetric dry
uu. **Responsible Official:** person(s) who have direct supervisorial authority or control to affect operations of the equipment authorized pursuant to this Permit, and who have the ability to certify that a source complies with all applicable federal requirements and federally enforceable permit conditions as generally defined in NCUAQMD Rule 101 §1.245
vv. **Rolling 3-hour Period:** Any consecutive three-hour period, not including start-up or shut-down periods
ww. **ROC:** reactive organic carbon consistent with NCUAQMD Rule 101 §1.294 and HSC
xx. **Quarter:** calendar quarter, consisting of the following Q1 - January through March; Q2 - April through June; Q3 - July through September; Q4 - October through December
yy. **Shutdown Period:** The 30 minute period immediately prior to the termination of fuel flow to the reciprocating engine.
zz. **SO_2**: Sulfur Dioxide
aaa. **Startup Period:** The lesser of the first 60 minutes of continuous fuel flow to the reciprocating engine after fuel flow is initiated or the period of time from reciprocating engine fuel flow initiation until the reciprocating engine achieves two consecutive valid 15-minute average CEM data points in compliance with the emission concentration limits of conditions #100 and #102.
bbb. **VEE**: Visible Emissions Evaluation
ccc. **Year**: Any consecutive twelve-month period of time

FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

TITLE V PERMIT MODIFICATIONS AND RENEWAL

1. This Permit shall serve as the Prevention of Significant Deterioration preconstruction permit for the sources identified herein, and is issued pursuant to 40 CFR Part 70 and Regulation V of the Rules and Regulations of the North Coast Unified Air Quality Management District.
[NCUAQMD Reg 5 Rule 405(b)] [NCUAQMD Reg V Rule 502 Section 2.2 (5/19/05)] [40 CFR 70.5(a)(1)(iii)]

2. This permit shall be valid for a period not to exceed 545 days from the date of issuance. Upon completion of the construction and the commissioning phase for the internal reciprocating engines, the Permittee shall submit a Title V Permit to Operate application to the Air Pollution Control Officer.
NCUAQMD Reg 5 Rule 405(b)] [NCUAQMD Reg V Rule 502 Section 2.2 (5/19/05)] [40 CFR 70.5(a)(1)(iii)]

3. If modifications to the permit are necessary, the Permittee of the Title V source permitted herein shall submit to the Air Pollution Control Officer a complete Title V permit application for either an Administrative, Minor, or Significant Title V permit modification. The application shall not be submitted prior to receiving any required

preconstruction permit from the NCUAQMD. *[NCUAQMD Reg 5 Rule 405(c)] [NCUAQMD Reg V Rule 502 Section 2.3 (5/19/05)] [40 CFR 70.5(a)(1)(ii)]*

4. The Permittee shall submit to the Air Pollution Control Officer timely updates to the Title V application as new requirements become applicable to the source, and in no event less than quarterly (i.e., every three months).
   [40 CFR 70.5(b)]

5. A Permittee's responsible official shall promptly provide additional information in writing to the Air Pollution Control Officer upon discovery of submittal of any inaccurate information as part of the application or as a supplement thereto; or of any additional relevant facts previously omitted which are needed for accurate analysis of the application; and including inaccurate information known, or which should have been known or should be known, by the Permittee(s).
   [NCUAQMD Reg 5 Rule 420(c)] [NCUAQMD Reg V Rule 502 Sections 5.1, 5.3, 5.4 (5/19/05)] [40 CFR 70.5(a)(2) and (b)]

6. Upon written request of the Air Pollution Control Officer, the Permittee's responsible official shall supplement any complete application with additional information within the time frame specified by the Air Pollution Control Officer.
   [NCUAQMD Reg 5 Rule 420(b)] [NCUAQMD Reg V Rule 502 Section 5.2 (5/19/05)] [40 CFR 70.5(a)(2) and (b)]

7. PSD preconstruction permit expiration terminates the Permittee's right to operate the stationary sources itemized in this permit unless a timely and complete Title V permit application has been submitted, in which case the existing PSD preconstruction permit will remain in effect until the Title V permit has been issued or denied. In order to be considered timely, a complete Title V permit application must be submitted prior to the expiration of the PSD preconstruction permit.
   [NCUAQMD Reg 5 Rule 400(b)(c) and (d)] [NCUAQMD Reg V Rule 502 Sections 1.2, 1.3, and 1.4] [40 CFR 70.7(b) and (e)(2) (v)]

8. When submitting an application for a permit pursuant to Regulation 5, the Permittee's responsible official shall include the following information: A certification by a responsible official of all reports and other documents submitted for permit application; compliance progress reports at least every 6 months for, and submitted no later than 30 days after, the periods January 1st through June 30th and July 1st through December 31st of each year; statements on compliance status with any applicable enhanced monitoring; and annual compliance plans, no later than January 30th of each year, which shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.
   [NCUAQMD Reg 5 Rule 415(m)] [NCUAQMD Reg V Rule 502 Section 4.13 (5/19/05)] [40 CFR 70.5(c)(9) and (d)]

9. With the exception of acid rain units subject to Title IV of the Clean Air Act and solid waste incinerators subject to section 129(e) of the Clean Air Act, each permit issued

pursuant to NCUAQMD Regulation 5 to operate for any source shall include a condition for a fixed term not to exceed five years from the time of issuance. A permit to operate for an acid rain unit shall have a fixed permit term of five years. A permit to operate for a solid waste incinerator shall have a permit term of 12 years; however, the permit shall be reviewed at least every five years.
[NCUAQMD Reg 5 Rule 660] [NCUAQMD Reg V Rule 504 Section 11 (5/19/05)] [40 CFR 70.6(a)(2)]

COMPLIANCE

10. The Permittee shall comply with all conditions of the Title V permit.
[*NCUAQMD Reg 5 Rule 610(g) (1)] [NCUAQMD Reg V Rule 504 Section 2.7 (5/19/05)]*

11. Compliance with the conditions of this Title V permit shall be deemed compliance with all applicable requirements identified in the Title V permit.
[40 CFR 70.6(f)]

12. The Permittee may not assert or use as a defense, expressly, impliedly, or by operation of law or past practice, in any enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Title V permit.
[NCUAQMD Reg 5 Rule 610(g) (4)] [NCUAQMD Reg V Rule 504 Section 2.7.4 (5/19/05)]

13. This Title V permit may be modified, revoked, reopened, and reissued or terminated for cause.
[NCUAQMD Reg 5 Rule 570(a) and (b)] [NCUAQMD Reg V Rule 503 Section 9 (5/19/05)]

14. The Permittee shall furnish to the Air Pollution Control Officer, within 10 (ten) days of the request, any information that the Air Pollution Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with this Title V permit. Upon request, the permittee shall also furnish to the Air Pollution Control Officer copies of records required to be kept by conditions of this permit. For information claimed to be confidential, the permittee may furnish such records directly to the EPA along with a claim of confidentiality. *[40 CFR 70.6(a)(6)(v)]*

15. Noncompliance with any federally enforceable requirement in this Title V permit is grounds for Title V permit termination, revocation and reissuance, modification, enforcement action, or denial of the Title V permit renewal application.
[NCUAQMD Reg 5 Rule 610(g) (3)] [NCUAQMD Reg V Rule 504 Section 2.7.3 (5/19/05)]

16. A pending Title V permit action (e.g. a proposed permit revision) or notification of anticipated noncompliance does not stay any permit condition. *[NCUAQMD Reg 5 Rule 610(g) (5)] [NCUAQMD Reg V Rule 504 Section 2.7.5 (5/19/05)]*

17. This Title V permit does not convey any property rights of any sort or any exclusive privilege.
[NCUAQMD Reg 5 Rule 610(g) (2)] [NCUAQMD Reg V Rule 504 Section 2.7.2 (5/19/05)]

18. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the Air Pollution Control Officer or an authorized representative to perform all of the following:
    A. Enter upon the stationary source's premises where this source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
    B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Title V permit;
    C. Inspect at reasonable times, the stationary source, equipment (including monitoring and air pollution control equipment), practices and operations regulated or required under this Title V permit; and
    D. As authorized by the Federal Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of ensuring compliance with the Title V permit conditions or applicable federal requirements.

    [NCUAQMD Reg 5 Rule 610(e)] [NCUAQMD Reg V Rule 504 Section 2.5 (5/19/05)]

REPORTS AND RECORDKEEPING

19. Monitoring Reports
    A. The Permittee shall submit to the Air Pollution Control Officer at least once every six months, unless required more frequently by an applicable requirement, reports of all required monitoring set out in this Title V permit.
    B. The reporting periods for this permit shall be for the six month periods January 1st through June 30th and July 1st through December 31st. The reports shall be submitted by July 30th and January 30th of each year respectively.
    C. Any and all instances of deviations from Title V permit conditions must be clearly identified in such reports. All required reports must be certified by the responsible official and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

    [NCUAQMD Reg 5 Rules 460 and 625] [NCUAQMD Reg V Rule 502 Section 11 and Rule 504 Section 5 and (5/19/05)] [40 CFR 70.6(a)(3)(ii) and (iii)]

20. Compliance Reports
    A. The Permittee shall submit to the Air Pollution Control Officer and to U.S. EPA (Air-3, U.S. EPA, Region IX) on an annual basis, unless required more frequently by additional applicable federal requirements, a certification of compliance by the Permittee's responsible official with all terms and conditions contained in the Title V permit, including emission limitations, standards and work practices.
    B. The reporting period for this permit shall be January 1st through December 31st. The report shall be submitted by January 30th of each year. The initial report shall be for the period January 1st 2009 through December 31st 2009 and shall be submitted by March 1st 2010.

C. All required reports must be certified by the responsible official and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
D. The compliance certification shall include the following:
   i. The identification of each term or condition of the Title V permit that is the basis of the certification.
   ii. The method(s) used for determining the compliance status of the source, currently and over the reporting period, and whether such method(s) provides continuous or intermittent data.
   iii. The status of compliance with the terms and conditions of the Title V permit for the period covered by the certification, based on the method designated in Section D (ii) of this condition.
   iv. Such other facts as the Air Pollution Control Officer may require in order to determine the compliance status of the source.
   v. A method for monitoring the compliance of the stationary source with its emissions limitations, standards and work practices.

[NCUAQMD Reg 5 Rule 650] [NCUAQMD Reg V Rule 504 Section 10 (5/19/05)] [40 CFR 70.6(b)(5)]

21. The Permittee shall report within 24 hours of detection any deviation from a federally enforceable Title V permit condition not attributable to an emergency. In order to fulfill the reporting requirement of this condition, the permittee shall notify the Air Pollution Control Officer by telephone followed by a written statement describing the nature of the deviation from the federally enforceable permit condition.
[NCUAQMD Reg 5 Rule 625] [NCUAQMD Reg V Rule 504 Section 5 (5/19/05)] [40 CFR 70.6(a)(3)(iii)]

22. All monitoring data and support information required by a federally enforceable applicable requirement must be kept by the stationary source for a period of 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the federally enforceable applicable requirement in the Title V permit.
[NCUAQMD Reg 5 Rules 455 and 615] [NCUAQMD Reg V Rule 502 Section 10 and Rule 504 Section 3 (5/19/05)] [40 CFR 70.6(a)(3)(ii)]

PUBLIC NUISANCE

23. The Permittee(s) shall not discharge such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.
[NCUAQMD Reg 1 Rule 400(a)]

VISIBLE EMISSIONS

24. The owner, operator or Permittee of this Title V source shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour which is:
    A. As dark or darker in shade as that designated No. 2 (6-minute average), on the Ringelmann Chart, as published by the United States Bureau of Mines, or
    B. Of such opacity as to obscure a human observer's view, or a certified calibrated in-stack opacity monitoring system to a degree equal to or greater than No. 2 on the Ringelmann Chart.

    [NCUAQMD Rule 410] [NCUAQMD Reg I Rule 104 Section 2 (5/19/05)]

PARTICULATE MATTER

25. A. General Combustion Sources
    The Permittee of this Title V source shall not discharge particulate matter into the atmosphere from any combustion source in excess of 0.46 grams per standard cubic meter (0.20 grains per standard cubic foot) of exhaust gas, calculated to 12 percent carbon dioxide; or in excess of the limitations of NSPS Rule 490, as applicable.
    B. Steam Generating Units
    The Permittee of this Title V source shall not discharge particulate matter into the atmosphere from any steam generating unit, installed or modified after July 1, 1976, in excess of 0.23 grams per standard cubic meter (0.10 grains per standard cubic foot) of exhaust gas, calculated to 12 percent carbon dioxide; or in excess of the limitations of NSPS Rule 490.
    C. Steam Generating Utility Power Plants
    Notwithstanding the limitations set out above, no steam generating power plants which produce electric power for sale to any public utility shall discharge particulate matter into the atmosphere in excess of 0.10 pounds per million BTU heat input or any other specific applicable permit limitation, whichever is the more restrictive emission condition.
    D. Non-Combustion Sources
    The Permittee of this Title V source shall not discharge particulate matter into the atmosphere from any non-combustion source in excess of 0.46 grams per actual cubic meter (0.20 grains per cubic foot) of exhaust gas or in total quantities in excess of the maximum allowable process weight rate as follows:

TABLE I

ALLOWABLE RATE OF EMISSION BASED ON PROCESS WEIGHT RATE					
Process Weight Rate		Rate of Emission	Process Weight Rate		Rate of Emission
Lb/Hr	Kg/Hr	Lb/Hr	Lb/Hr	Kg/Hr	Lb/Hr
100	45	0.55	6,000	2,720	8.6
200	92	0.88	7,000	3,380	9.5
400	183	1.4	8,000	3,680	10.4
600	275	1.83	9,000	4,134	11.2
800	377	2.22	10,000	4,540	12.0
1,000	454	2.58	12,000	5,460	13.6
1,500	681	3.38	16,000	7,260	16.5
2,000	920	4.1	18,000	8,220	17.9
2,500	1,147	4.76	20,000	9,070	19.2
3,000	1,362	5.38	30,000	13,600	25.2
3,500	1,690	5.96	40,000	18,100	30.5
4,000	1,840	6.52	50,000	22,700	35.4
5,000	2,300	7.58	60,000	27,200	40.0

Where the process weight per hour is between two listed figures, such process weight and maximum allowable particulate emission per hour shall be interpolated linearly. The total process weight of all similar process operations located at a single plant or of similar multiple plants located on a single premise, shall be used for determining the maximum allowable particulate emission from the combination of such operations.

[NCUAQMD Rule 420] [NCUAQMD Reg I Rule 104 (5/19/05)]

26. The Permittee of this Title V source shall not handle, transport or store or allow open storage of materials in such a manner which allows or has the potential to allow unnecessary amounts of particulate matter to become airborne. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne, including, but not limited to, the following:
    A. Covering open bodied trucks when used for transporting materials likely to give rise to airborne dust.
    B. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Containment methods can be employed during sandblasting and other similar operations.
    C. Conduct agricultural practices in such a manner as to minimize the creation of airborne dust.
    D. The use of water or approved dust surfactants for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.

E. The application of asphalt, oil, water or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts.
F. The paving of roadways and their maintenance in a clean condition.
G. The prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

[NCUAQMD Rule 430] [NCUAQMD Reg I Rule 104 Section 4 (5/19/05)]

SULFUR COMPOUNDS

27. The owner(s), operator(s) or Permittee(s) of this Title V source shall not discharge into the atmosphere from any single source of emissions whatsoever sulfur oxides, calculated as sulfur dioxide (SO2) in excess of 1,000 ppm; or in excess of the specific source emission limitations of Federal New Source Performance Standards, as applicable.

[NCUAQMD Rule 440] [NCUAQMD Reg I Rule 104 Section 5 (5/19/05)]

OPEN BURNING

28. The Permittee of this Title V source shall not ignite or cause to be ignited or suffer, allow or maintain any open outdoor fire for the disposal of rubber, petroleum or plastic wastes, demolition debris, tires, tar paper, wood waste, asphalt shingles, linoleum, cloth, household garbage or other combustible refuse; or for metal salvage or burning of motor vehicle bodies No other open burning shall occur without the owner, operator(s) or Permittee having first obtained a Coordinated Authorized Burn Permit from the Air Pollution Control Officer.

[NCUAQMD Reg 2 Rules 200 & 201]

EQUIPMENT BREAKDOWNS

29. The Permittee shall comply with the emergency provisions contained in all applicable federal requirements.

A. Within two weeks of an emergency event, the owner(s), operator(s) or Permittee's responsible official shall submit to the Air Pollution Control Officer a signed contemporaneous log or other relevant evidence which demonstrates that:

i. An emergency occurred.
ii. Identification of the cause(s) of the emergency.
iii. The facility was being properly operated at the time of the emergency.
iv. Identification of each and every step taken to minimize the emissions resulting from the emergency.
v. Within two working days of the emergency event, the permittee shall notify the Air Pollution Control Officer with a description of the emergency and any mitigating or corrective actions taken.

C. The Permittee has the burden of proof to establish that an emergency occurred in any enforcement proceeding.

[NCUAQMD Reg 5 Rule 450]

TITLE VI REQUIREMENTS (OZONE DEPLETING SUBSTANCES)

30. The Permittee of this Title V source allowing or causing the opening of appliances containing CFCs for maintenance, service, repair, or disposal must comply with the required practices set out in and pursuant to 40 CFR 82.156.
[40 CFR 82 Subpart F]

31. Equipment used during the maintenance, service, repair, or disposal of appliances containing CFCs shall comply with the standards for recycling and recovery equipment set out in and pursuant to 40 CFR 82.158.
[40 CFR 82 Subpart F]

32. The Permittee and its contractors and agents performing maintenance, service, repair or disposal of appliances containing CFCs must be certified by an approved technician certification program set out in and pursuant to 40 CFR 82.161.
[40 CFR 82 Subpart F]

ASBESTOS

33. The Permittee of this Title V source shall comply with the standards of 40 CFR 61 Subpart M which regulates demolition and renovation activities pertaining to asbestos materials.

PAYMENT OF FEES

34. The Permittee of this Title V source shall pay an annual permit fee and other fees as required in accordance with NCUAQMD Rule 300. Failure to pay these fees by the dates due will result in immediate suspension of this Title V Permit to Operate effective on the date the fees were due, and on notification by the Air Pollution Control Officer of such suspension. Operation without an effective Title V permit subjects the owner(s), operator(s) and Permittee(s) to potential enforcement action by the NCUAQMD and the U.S. EPA pursuant to Section 502(a) of the Clean Air Act as amended in 1990.
[NCUAQMD Reg 5 Rule 670]

ACCIDENTAL RELEASES

35. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the Permittee(s) of this Title V permit shall register and submit to the U.S. EPA the required data related to the risk management plan (RMP) for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r) (3) of the CAA as amended in 68.130. The list of substances, threshold quantities and accident prevention regulations promulgated under Part 68 do not limit in any way the general duty provisions under Section 112(r)(1).
[40 CFR Part 68]

36. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the Permittee shall comply with the requirements of 40 CFR Part 68 no later than the latest of the following dates as provided in 40 CFR 68.10(a):
A. June 21, 1999,
B. Three years after the date on which a regulated substance is first listed under 68.130, or

C. The date on which a regulated substance is first present above a threshold quantity in a process.
[40 CFR Part 68]

37. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the Permittee(s) shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.
[40 CFR Part 68]

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the Permittee(s) shall annually certify compliance with all applicable requirements of Section 112(r) as part of the annual compliance certification. This annual compliance certification shall be submitted and received no later than January 30th of each year.
[40 CFR Part 68]

CONDITIONAL TRANSFER OF OWNERSHIP

39. In the event of any changes in control or ownership of these facilities, this permit together with its terms and conditions shall be binding on all subsequent owners and operators. The Permittee shall notify the succeeding owner and operator of the existence of this permit and its conditions by letter, a copy of which shall be forwarded to the NCUAQMD, and which shall identify the exact effective date of the transfer of ownership.

The new owner(s) and operator(s) of this Title V source shall notify the Air Pollution Control Officer within 30 (thirty) days of the transfer of ownership and which notification shall include a certification by the responsible party that the Title V facility operations are to be operated in the same operational parameters as set out herein, and as before the transfer of ownership.

Any permit or written authorization issued pursuant herein shall not be transferable, by operation of law or otherwise, from one location to another, or from one person to another, unless such transfer occurs as a condition of this permit or as a modification to the permit and with written notification to the Air Pollution Control Officer within 30 (thirty) days of transfer of ownership.
[NCUAQMD Rule 240]

SEVERABILITY

40. If any term or condition of this permit, for any reason, be adjudged by a court of competent jurisdiction to be invalid, such judgment shall not affect or invalidate the remainder of this permit. These permit conditions are enforceable individually and severally.
[NCUAQMD Reg 5 Rule 610(h)] [40 CFR 60.6(b)(5)]

LOCAL ENFORCEABLE ONLY, GENERAL REQUIREMENTS

APPLICABILITY

41. The requirements outlined in this section are non-federally enforceable local permit

requirements. *[NCUAQMD Rule 102]*

42. The Permittee of this Title V source shall not cause or permit the construction or modification of any new source of air contaminants or modifications to an existing source, either minor or major, without first having obtained an Authority to Construct (ATC) permit from the Air Pollution Control Officer.

43. This permit is effective only upon payment of the initial permit fees set out in NCUAQMD Rules and Regulations.

ADMINISTRATION

44. This Permit is issued pursuant to California Health and Safety Code Section 42300. Commencement of any act or operation authorized by this Permit shall be conclusively deemed to be acceptance of all terms and conditions contained herein.

45. The Permittee shall comply with all conditions of this permit. Any violation of any condition of this Permit is a violation of NCUAQMD Rules and Regulations, and California State Law. [*NCUAQMD Rule 105 §1.0*]

46. The Permit Conditions shall be liberally construed for the protection of the health, safety and welfare of the people of the NCUAQMD. [*NCUAQMD Rule 100 §6.3; Rule 102 §5.0]*

47. The NCUAQMD Rules and Regulations may be superseded or revised by the NCUAQMD Board with notice as required by state law. It is Permittee's responsibility to stay current with Rules and Regulations governing its business. The Permittee is therefore expected to comply with all applicable Rules and Regulations. [*NCUAQMD Rule 100 §6.0; Rule 105 §1.0*]

48. Permit requirements apply to the facility owner and/or operator(s) and any contractor(s) or subcontractor(s) performing any activity authorized under this Permit. Any person(s) including contractor(s), subcontractor(s), not in compliance with the applicable permit requirements are in violation of State and Local laws and subject to appropriate civil and criminal penalties. The facility owner and/operator, and all contractor(s) or subcontractor(s) are strictly liable for the actions and violations of their employee(s). A violation committed by a contractor(s) or subcontractor(s) shall be considered a violation by the facility owner(s) and/or operator(s), and is also a violation by the contractor(s) and/or any subcontractor(s). [*NCUAQMD Rule 105 §5.0*]

49. Changes in plans, specifications, and other representations proposed in the application documents shall not be made if they will increase the discharge of emissions or cause a change in the method of control of emissions or in the character of emissions. Any proposed changes, regardless of emissions consequence, shall be submitted as a modification to this Permit. No modification shall be made prior to issuance of a permit revision for such modification. [*NCUAQMD Rule 102*]

50. Knowing and willful misrepresentation of a material fact in the application for the Permit, or failure to comply with any condition of the Permit, or of the NCUAQMD Rules and Regulations, or any state or federal law, shall be grounds for revocation of this Permit. [*NCUAQMD Rule 102*]

51. Permittee shall not construct, erect, modify, operate, or use any equipment which conceals the emission of an air contaminant, which would otherwise constitute a violation of the limitations of this Permit. [*NCUAQMD Rule 104 §1.2*]

52. This Permit does not convey any property rights of any sort, or any exclusive privilege.

53. The "Right of Entry", as delineated in NCUAQMD Rule 109 §1.0 and California Health and Safety Code Section 41510 of Division 26, shall apply at all times. Failure to grant immediate access to NCUAQMD, CARB, or other authorized personnel shall be grounds for permit suspension or revocation.

54. The APCO reserves the right to amend this Permit in order to ensure compliance with all applicable Federal, State and Local laws, Rules and Regulations or to mitigate or abate any public nuisance. Such amendments may include requirements for additional operating conditions, testing, data collection, reporting and other conditions deemed necessary by the APCO.

55. In the event that two or more conditions may apply, and such conditions both cannot apply without conflict, the condition(s) most protective of the environment and the public health and safety shall prevail. In the event that a condition(s) of the Permit and a requirement of a Federal, State or Local law, rule or regulation may also apply, and both cannot apply without conflict, the requirements most protective of the environment and the public health and safety shall prevail. [*NCUAQMD Rule 100 §6.3; NCUAQMD Rule 102 §5.0*]

56. If any provision or condition of this Permit is found invalid by a court of competent jurisdiction, such finding shall not affect the validity or enforcement of the remaining provisions. [*NCUAQMD Rule 102 §5.0*]

57. This Permit shall be posted in a conspicuous location at the site and shall be made available to NCUAQMD representatives upon request. [*NCUAQMD Rule 102 §8.0*]

58. The Permittee shall pay an annual permit fee and other fees as required in accordance with NCUAQMD Regulation IV. Failure to pay these fees will result in the forfeiture of this Permit. Operation without a permit subjects the source to potential enforcement action by the NCUAQMD. In the event of facility closure or change of ownership or responsibility, the new owner or operator shall be assessed and shall pay any unpaid fees. [*NCUAQMD Regulation IV - Fees*]

59. This Permit is not transferable from either one location to another, from one piece of equipment to another, or from one person to another, except as provided herein. In

the event of any change in control or ownership of the subject facility, the Permittee shall notify the succeeding owner of this Permit and its conditions; and shall notify the NCUAQMD of the change in control or ownership within fifteen (15) days of that change. [*NCUAQMD Rule 400 §5.0*]

60. A request for Transfer of Ownership of this Permit shall be submitted to the APCO prior to commencing any operation of the subject equipment and/or operations by any owner(s) and/or operator(s) not otherwise identified in this Permit. Failure to file the Transfer of Ownership constitutes a separate and independent violation, and is cause for voiding this Permit. The burden of applying for a Transfer of Ownership is on the new owner(s) and/or operator(s). Any Permit transfer authorized pursuant to a transfer of ownership request shall contain the same conditions as this Permit. [*NCUAQMD Rule 400 §5.0; Rule 102 §5.0*]

61. For purposes of this Permit, the terms identified in the Definition Section shall have the meaning set out therein. [NCUAQMD Rule 102 §5.0]

EMISSIONS & OPERATION

62. This Permit does not authorize the emission of air contaminants in excess of those allowed by the Federal Clean Air Act, California Health and Safety Code or the Rules and Regulations of the NCUAQMD. This Permit shall not be considered as permission to violate existing laws, ordinances, regulation or statutes of other governmental agencies.

63. Permittee shall not discharge such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property. [*CH&S §41700; NCUAQMD Rule 104 §1.1*]

64. Permittee shall not discharge into the atmosphere from any source whatsoever any air contaminant for a period or periods aggregating more than three (3) minutes in any one hour which is as dark or darker in shade as that designated as No. 2 on the Ringelmann Chart, as published by the United States Bureau of Mines; or of such opacity as to obscure an observer's view to a degree equal to or greater than Ringelmann 2 or forty (40) percent opacity. [*CH&S §41701; NCUAQMD Rule 104 §2.0*]

65. The handling, transporting, or open storage of material in such a manner which allows unnecessary amounts of particulate matter to become airborne shall not be permitted. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. [*NCUAQMD Rule 104 §4.0*]

66. All equipment regulated by this Permit shall at all times be maintained in good working order and shall be operated as efficiently as possible so as to ensure compliance with all applicable emission limits. For purposes of compliance with this

requirement, good working order, efficient operation, and proper maintenance shall mean the implementation of all protocols, procedures, and activities recommended by the device manufacturer or those required by this Permit. [*NCUAQMD Rule 102 §5.0*]

RECORDS & TRAINING

67. The Permittee shall provide training and instruction to all contractor(s), subcontractor(s), and employee(s). Training shall include the identification of all the requirements contained within this Permit, and the appropriate method to be used to comply with the permit conditions. Training shall occur prior to any of the contractor(s), subcontractor(s), or employee(s) constructing or operating equipment authorized by this permit. Records documenting the persons receiving instruction and the instruction materials shall be made available to the APCO upon request. [*NCUAQMD Rule 105 §5.0*]

68. Permittee shall furnish to the APCO, within a reasonable time, any information that the NCUAQMD may request to determine compliance with this Permit or whether cause exists for modifying, revoking and reissuing, or terminating this Permit. Upon request, Permittee shall also furnish to the NCUAQMD copies of records required to be kept by this Permit. [*CH&S §42303; NCUAQMD Rule 103 §6.0, Rule 102 §5.0*]

PERMIT TERM

69. This Permit is issued pursuant to NCUAQMD Rule 110 Section 9 and shall only become effective after a Final Determination of Compliance has been issued by the APCO pursuant to NCUAQMD Rule 110 §9.6.

70. The authorization for equipment installation and construction activities identified in this Permit shall expire no more than 545 days from date of issue. [*NCUAQMD Rule 102 §5.0*]

71. Once the subject equipment has been constructed in compliance with the conditions of this permit, this Authority to Construct Permit shall serve as a Temporary Permit to Operate for a period not to exceed one hundred and eighty (180) days of operation. Should the need arise, the Temporary Permit to Operate may be extended by the APCO for up to an additional ninety (90) days for good cause shown. The burden of proof lies with the Permittee to demonstrate good cause for such action. [*CH&SC §42301.1; NCUAQMD Rule 102 §2.0*]

FEDERALLY ENFORCEABLE, EQUIPMENT SPECIFIC REQUIREMENTS

The information specified under this section is enforceable collectively and severally by the NCUAQMD, U.S. EPA, and the public.

Authorized Equipment

72. The Permittee shall install and construct the project as described in Authority To Construct application September 29th 2006 and its series of amendments ending with the most recent submittal of February 27th 2008. Should discrepancies or contradictions exist between the application and this Permit, the provisions of this Permit shall prevail. The specific components authorized are listed in Table 1.0 and Table 2.0 below. For each of the reciprocating internal combustion engines S-1 through S-10, both a Selective Catalytic Reduction system (SCR) and an oxidation catalyst shall be designated "A-(engine number) SCR" and "B-(engine number) oxidation catalyst respectively". *[NCUAQMD Rule 504 §2.1]*

Table 1.0 Authorized Emission Devices

Unit No.	Equipment	Nominal Size
S-1	Wärtsilä 18V50DF Dual Fuel Reciprocating Engine #1, equipped with lean burn technology, abated by A-1 SCR and B-1oxidation catalyst	148.9 MMBtu/hr 16.3 MW 22,931 BHp
S-2	Wärtsilä 18V50DF Dual Fuel Reciprocating Engine #2, equipped with lean burn technology, abated by A-2 SCR and B-2 oxidation catalyst	148.9 MMBtu/hr 16.3 MW 22,931 BHp
S-3	Wärtsilä 18V50DF Dual Fuel Reciprocating Engine #3, equipped with lean burn technology, abated by A-3 SCR and B-3 oxidation catalyst	148.9 MMBtu/hr 16.3 MW 22,931 BHp
S-4	Wärtsilä 18V50DF Dual Fuel Reciprocating Engine #4, equipped with lean burn technology, abated by A-4 SCR and B-4 oxidation catalyst	148.9 MMBtu/hr 16.3 MW 22,931 BHp
S-5	Wärtsilä 18V50DF Dual Fuel Reciprocating Engine #5, equipped with lean burn technology, abated by A-5 SCR and B-5 oxidation catalyst	148.9 MMBtu/hr 16.3 MW 22,931 BHp
S-6	Wärtsilä 18V50DF Dual Fuel Reciprocating Engine #6, equipped with lean burn technology, abated by A-6 SCR and B-6 oxidation catalyst	148.9 MMBtu/hr 16.3 MW 22,931 BHp
S-7	Wärtsilä 18V50DF Dual Fuel Reciprocating Engine #7, equipped with lean burn technology, abated by A-7 SCR and B-7 oxidation catalyst	148.9 MMBtu/hr 16.3 MW 22,931 BHp
S-8	Wärtsilä 18V50DF Dual Fuel Reciprocating Engine #8, equipped with lean burn technology, abated by A-8 SCR and B-8 oxidation catalyst	148.9 MMBtu/hr 16.3 MW 22,931 BHp
S-9	Wärtsilä 18V50DF Dual Fuel Reciprocating Engine #9, equipped with lean burn technology, abated by A-9 SCR and B-9 oxidation catalyst	148.9 MMBtu/hr 16.3 MW 22,931 BHp
S-10	Wärtsilä 18V50DF Dual Fuel Reciprocating Engine #10, equipped with lean burn technology, abated by A-10 SCR and B-10 oxidation catalyst	148.9 MMBtu/hr 16.3 MW 22,931 BHp
S-11	Caterpillar DM8149 (or equivalent) Diesel-fired Emergency IC Engine powering a 350kW electrical generator	469 HP
S-12	Clarke/John Deere JU6H-UF50 (or equivalent) Diesel-fired Emergency IC Engine powering a fire water pump	210 HP

Table 2.0 Authorized Control Devices

Control Equipment	Manufacturer	Model	Specifications
Oxidation Catalyst	HUG Engineering (or equivalent)	OCT-0806-040-0062/450 (or equivalent)	Catalyst: Platinum Reactor Temperature: 608 ˚F to 908 ˚F Outlet Temperature: 608 ˚F to 908 ˚F Max Flow: 143,000 acfm Control Efficiency: 13ppmvd CO @15%O_2 while in NG Mode; 20ppmvd CO @15%O_2 while in Diesel Mode
Selective Catalytic Reduction System	HUG Engineering (or equivalent)	RFV-0890-040-200/300 (or equivalent)	Catalyst: Vanadium Pentoxide Reactor Temperature: 608 ˚F to 908 ˚F Outlet Temperature: 608 ˚F to 908 ˚F Max Flow: 143,000 acfm Control Efficiency: 6ppmvd NOx @15%O_2 while in NG Mode; 35ppmvd NOx @15%O_2 while in Diesel Mode

73. The Permittee shall not modify the equipment subject to this permit in such a manner so as to exceed the Heat Input Capacities, or deviate from the nominal full-load design specifications as submitted in the AFC, and as identified in Table 1.1, Table 1.2, or Table 1.3. *[NCUAQMD Rule 102 §5.0]*

Table 1.1 S-1 Through S-10 Engine Specifications

Primary Fuel	Natural Gas
Backup Fuel	CARB Diesel
Design Ambient Temperature	67.5 ˚F
Nominal Heat Input Rate (HHV)	143.9 MMBtu/hr natural gas plus 0.79 MMBtu pilot fuel (natural gas mode) – OR – 148.9 MMBtu/hr CARB Diesel Fuel (diesel mode)
Nominal Exhaust Temperature	728˚F
Exhaust Flow Rate	121,500 acfm
Exhaust Release Height	100 Feet (above grade)
Exhaust O2 Concentration, dry volume	11.6%
Exhaust CO2 Concentration, dry volume	5.3%
Emission Controls	Lean Burn Technology and SCR; Oxidation Catalyst
SIC	4911

SCC	20100202 natural gas mode; 20100301 diesel mode

Table 1.2 S-11 Engine Specifications

Primary Fuel	CARB Diesel
Nominal Heat Input Rate (HHV)	4.0 MMBtu/hr
Heat Input, gal/hr	29.1
SIC	4911
SCC	20100301

Table 1.3 S-12 Engine Specifications

Primary Fuel	CARB Diesel
Nominal Heat Input Rate (HHV)	1.68 MMBtu/hr
Heat Input, gal/hr	12.3
SIC	4911
SCC	20201607

74. The Permittee shall only fire reciprocating engines S-1 through S-10 with fuel which meets or exceeds the fuel specifications identified in Tables 1.3 and 1.4. Prior to firing reciprocating engines S-1 through S-10 with an Alternative Fuel or CARB Diesel with additives, the Permittee shall make a request to the APCO to switch fuel types. The request shall include all necessary information to characterize emission changes which may occur as a result of the change. The Permittee shall not fire reciprocating engines S-1 through S-10 with a liquid fuel other than CARB Diesel without prior approval from the APCO. [*NCUAQMD Rule 102 §5.0*]

Table 1.4 Fuel Specifications for S-1 through S-10

Fuel Type	Property	Value
Natural Gas	Sulfur Content	< 1 gr / 100scf per test; annual average <0.33gr/100scf
CARB Diesel	Sulfur Content	< 15 ppm

75. Reciprocating engines S-1 through S-10 shall be equipped with a monitoring system capable of measuring and recording hours of operation (in tenths of an hour) and fuel consumption (in cubic feet and gallons) while operating in natural gas mode and diesel mode. The measuring devices shall be accurate to plus or minus 1% at full scale, and shall be tested at least once every twelve months or at more frequent intervals if necessary to ensure compliance with the 1% accuracy requirement. [*NCUAQMD Rule 102 §5.0*]

76. The exhaust stacks shall not be fitted with rain caps or any other similar device which would impede vertical exhaust flow. [*NCUAQMD Rule 102 §5.0*]

77. The Permittee shall install and maintain a non-resettable hour meter with a minimum display capability of 9,999 hours upon the Emergency IC Diesel Generators S-11 and S-12. [*NCUAQMD Rule 102 §5.0*]

78. The Emergency IC Diesel Generators S-11 and S-12 shall use one of the following fuels:
    a. CARB Diesel Fuel, or
    b. An alternative diesel fuel that meets the requirements of the Verification Procedure (as codified in CCR Title 13 Sections 2700-2710), or
    c. CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure (as codified in CCR Title 13 Sections 2700-2710), or
    d. Any combination of a) through d) above.

79. The reciprocating engines S-11 and S-12 shall be certified to meet the EPA Tier 3 emission levels. [*40 CFR 60 Subpart IIII*]

80. The Permittee shall obtain APCO approval for the use of any equivalent engine for S-11 or S-12 not specifically approved by this Authority to Construct. Approval of an equivalent engine shall be made only after the APCO's determination that the submitted design and performance data for the proposed IC engine is equivalent to the approved engine. [*NCUAQMD Rule 102 §5.0*]

81. The Permittee's request for approval of an equivalent engine shall include the following information: engine manufacturer and model number, horsepower (hp) rating, exhaust stack information, and manufacturer's guaranteed emission concentrations. [*NCUAQMD Rule 504 §4.0; NCUAQMD Rule102 §5.0*]

82. The Permittee's request for approval of an equivalent engine shall be submitted to the NCUAQMD at least 90 days prior to the planned installation date. The Permittee shall also notify the NCUAQMD at least 30 days prior to the actual installation of the NCUAQMD approved equivalent engine. [*NCUAQMD Rule 103 §6.0*]

83. The Permittee shall install exhaust gas temperature monitoring devices at the inlet and the outlet of the oxidation catalyst. [*40 CFR §63.6625; BACT*]

84. Ammonia injection points shall be equipped with operational ammonia flow meters and injection pressure indicators. The flow meters shall be accurate to plus or minus 1% at full scale and shall be calibrated at least once every twelve months or at more frequent intervals if necessary to ensure compliance with the 1% requirement. [*NCUAQMD Rule 102 §5.0*]

85. The Permittee shall install points of access to the Emission Devices, Control Devices, and Continuous Emission Monitoring Devices such that source testing in accordance with the appropriate reference test methods can be performed. All points of access shall conform to the latest Cal-OSHA safety standards. For purposes of compliance with this part, appropriate test methods shall mean the test methods identified in the Testing and Compliance Monitoring Conditions section of this Permit; and the collection of gas samples with a portable NOx, CO, and O_2 analyzer. Sample collection ports shall be located in accordance with 40 CFR Part 60 Appendix A, and with the CARB document entitled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [*NCUAQMD Rule 102 §5.0*]

86. Each reciprocating engine shall be equipped with a continuous emission monitor (CEM) for NOx, CO, and O_2. Continuous emissions monitor(s) shall meet the requirements of 40 CFR part 60, Appendices B and F, and NCUAQMD-approved protocol during normal operations. The monitors shall be designed and operated so as to be capable of monitoring emissions during normal operating conditions and during Startup and Shutdowns Periods. [*NCUAQMD Regulations Appendix B*]

87. The Permittee shall demonstrate compliance with the ammonia slip limit by using the following calculation procedure: The ammonia emission concentration shall be verified by the continuous recording of the ratio of the ammonia injection rate to the NOx inlet rate into the SCR control system (molar ratio). The maximum allowable NH3:NOx molar ratio shall be determined during any required source test, and shall not be exceeded until reestablished through another valid source test. Alternatively, the Permittee may be required to install, operate and maintain a continuous in-stack emissions monitor for emissions of ammonia. The Permittee shall obtain APCO approval for the installation and use the ammonia CEMs equipment at least 60 days prior to the planned installation date. [*NCUAQMD Rule 103 §6.0*]

88. Both onsite and offset emission credits were utilized for this project. Prior to commencement of construction, in accordance with Rule 106 §6.6, the Permittee shall provide to the NCUAQMD APCO documentation of transfer of ownership of offsite Emission Reduction Credits sufficient to offset the emissions identified in Table 3. Prior to commencement of the Commissioning Period, the Permittee shall surrender to the NCUAQMD sufficient offsite emission credits to offset the increases listed in Table 3.0 below. NOx credits provided to offset PM_{10} increases shall be at an inter-pollutant ratio of 3.58:1 after the appropriate distance ratio is applied. The Permittee shall permanently shut down the existing facility and all emission units permitted under Title V Permit To Operate NCU 059-12 in accordance with Condition #110. [*40 CFR 51, Appendix S; NCUAQMD Rule 110*]

Table 3.0 HBRP Required Offsite Offsets By Quarter

Pollutant	Pollutant Quantities in Tons			
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
PM_{10}	2.45	2.35	2.37	2.34
ROC	0.62	0.59	0.59	0.59

EMISSION LIMITING CONDTIONS

89. The Permittee shall not discharge particulate matter into the atmosphere from any combustion source in excess of 0.20 grains per cubic foot of dry gas calculated to 12 percent CO_2 at standard conditions. [*NCUAQMD Rule 104 §3.1*]

90. The Permittee shall not discharge sulfur dioxide into the atmosphere in excess of 1000 ppmv or 40 tons per year. [*NCUAQMD Rule 104 §5.0*]

91. Visible emissions from reciprocating engines S-1 through S-12 shall not be as dark or darker in shade as that designated as No. 1 on the Ringleman Chart, or of such opacity so as to obscure an observer's view to a degree equal to or greater than 20%, for any period or periods aggregating more than 3 minutes in any one hour. This visible emission limitation shall not apply during Startup or Shutdown Periods. *[NCUAQMD Rule 102 §5.0]*

92. The Permittee The Permittee shall not operate reciprocating engines S-1 through S-10 such that the emissions of NOx, from a combination of all engines, exceeds 392 lbs per hour. Furthermore, except as provided below, the Permittee shall not operate reciprocating engines S-1 through S-10 such that more than 2 units are in a Diesel Startup Period during any one Clock Hour. Following completion of the emissions testing for all ten units required under Condition #163, the Permittee may request the use of an alternative compliance demonstration method. Such a request shall include, but not be limited to the following:

    A. Identification of alternative operational limit(s) and/or alternative method(s) for determining compliance with the facility wide pound per hour NOx emission limit; and

    B. Source test data and calculations demonstrating that revisions to emission factors, and/or utilization of an alternative compliance determination method, are appropriate.

    Upon written approval by the District of the alternative compliance demonstration method, the permit limitation on the number of Diesel Mode Startups may be modified. In no event shall the facility wide hourly limit of 392 lbs of NOx be increased, nor any operational activities permitted, which would allow an exceedance of any emission limitation. *[NCUAQMD Rule 102 §5.0]*

93. The Permittee shall not discharge diesel particulate matter from reciprocating engines S-1 through S-10 while operating in Diesel Mode such that emissions of Diesel Particulate Matter exceed 0.11 g/bhp-hr. *[NSPS 40 CFR Part 60 Subpart IIII]*

94. The Permittee shall not discharge Carbon Monoxide from reciprocating engines S-1 through S-10 in excess of 0.14 g/bhp-hr or 20 ppmvd @ 15% O_2. *[40 CFR 63 Subpart ZZZZ]*

HEAT INPUT & FUEL LIMITATIONS

Engines S-1 Through S-10

95. The Permittee shall not operate reciprocating internal combustion engines S-1 through S-10 in such a manner so as to exceed the heat input capacities listed in Table 4.0 on a per engine basis. *[NCUAQMD Rule 102 §5.0]*

Table 4.0 Heat Input Limitations Per Engine

Each Unit[1]		Heat Input, MMBtu (HHV)	
		Hourly 3 hr rolling average	Daily 24 hour rolling average
Natural Gas Mode[2]	Natural Gas	143.9	3,454
	Diesel (Pilot)	0.8	19
Diesel Mode	Diesel	148.9	3574

Notes:

1) Each unit can only run in either Natural Gas or Diesel Mode, not both simultaneously.
2) Heat Input in Natural Gas Mode is the sum of natural gas and diesel pilot also.

96. The Permittee shall not operate reciprocating internal combustion engines S-1 through S-10 in such a manner so as to exceed the heat input capacities listed in Table 4.1 below calculated as a sum of all 10 engines. *[NCUAQMD Rule 102 §5.0]*

Table 4.1 Heat Input Limitations S-1 Through S-10 Engines Combined

Sum of All 10 Units		Heat Input, MMBtu (HHV)		
		Hourly	Daily	Annual
Natural Gas Mode[1]	Natural Gas	1,439	34,536	9,277,233[2]
	Diesel Pilot	7.9	190	51,576
Diesel Mode	Diesel	1,489	30,376[2,3]	148,900[2]

Notes:

1) Total Heat Input in Natural Gas Mode is the sum of natural gas and diesel pilot.
2) This limit applies to operation for maintenance and testing, and during periods of Natural Gas Curtailments as defined in this permit. The limit shall not apply to fuel consumed during the Commissioning Period.
3) This limit was established to ensure compliance with the $PM_{2.5}$ standard

97. The Permittee shall not exceed the diesel fuel firing limits listed in Table 4.2 below while operating reciprocating engines S-1 through S-10 in Natural Gas Mode. *[NCUAQMD Rule 102 §5.0]*

Table 4.2 Diesel Fuel Firing Limitations (Pilot)

Engines S-1 Through S-10	Gallons of Diesel Fuel		
	Hourly 3 hr rolling average	Daily 24 hour rolling average	Annual 365 day rolling average
All Combined	58	1,402	376,734

98. The Permittee shall not exceed the diesel fuel firing limits listed in Table 4.3 below while operating reciprocating engines S-1 through S-10 in Diesel Mode. *[NCUAQMD Rule 102 §5.0]*

Table 4.3 Diesel Fuel Firing Limitations

Engines S-1 Through S-10	Gallons of Diesel Fuel		
	Hourly 3 hr rolling average	Daily 24 hour rolling average	Annual 365 day rolling average
Per Engine	1,088	26,106	-
All Combined	10,876	221,877[1,2]	1,087,630[1]

Notes:

1) This limit applies to operation for maintenance and testing, and during periods of Natural Gas Curtailments as defined in this permit. The limit shall not apply to fuel consumed during the Commissioning Period.

2) This limit was established to ensure compliance with the $PM_{2.5}$ standard (85% average load)

POLLUTANT LIMITATIONS

S-1 - S-10 Startup & Shutdown Periods

99. The Permittee shall not operate reciprocating engines S-1 through S-10, such that they individually discharge pollutants exceeding the limits identified in Table 5.0 below during Startup or Shutdown Periods. *[NCUAQMD Rule 102 §5.0]*

Table 5.0 Start & Shutdown Period Emission Limits

Mode of Operation	Pollutant				
	NOx	CO	ROC	PM10	SOx
Natural Gas, lb/hr	23.6	24.1	17.9	3.6	0.4
Diesel Mode, lb/hr	164	25.5	17.2	10.8	0.22

S-1 - S-10 Natural Gas Mode

100. The Permittee shall not operate reciprocating engines S-1 through S-10, such that they individually discharge pollutants exceeding the limits identified in Table 5.1 below based upon a three (3) hour average with the exception of NOx which shall be based upon a one (1) hour average. The limits shall not apply during Startup or Shutdown Periods. *[40 CFR 63.6(f)(1), NCUAQMD Rule 102 §5.0]*

Table 5.1 Natural Gas Mode Emission Limits – per engine

Pollutant	Emission Rate		
	ppmvd @ 15% O_2	lb/hr	lb/MMBtu
CO	13	4.13	0.029
NH_3	10	1.9	0.013
NOx	6.0	3.1	0.022
PM_{10}	-	3.6	-
ROC	28	5.1	0.035
SOx	-	0.40	0.0028

101. The combined discharge of pollutants, from the reciprocating engines S-1 through S-10 shall not exceed the limits listed in Table 5.2 below during any Calendar Day in which none of the engines are operated in Diesel Mode for any period of time. For purposes of compliance with this condition, the emissions from Startup and Shutdown Periods shall be included in the daily calculation of emissions. *[NCUAQMD Rule 102 §5.0]*

Table 5.2 S-1 Through S-10 Combined Natural Gas Mode Limit

Pollutant	Emission Rate lb/Day
CO	1,589
NH_3	456
NOx	1,360
PM_{10}	864
ROC	1,608
SOx	97

S-1 - S-10 Diesel Mode

102. The Permittee shall not discharge pollutants into the atmosphere from the reciprocating engines S-1 through S-10 while in Diesel Mode, based upon a three (3) hour rolling average, in excess of the emission limits identified in Table 5.3 below. The limits shall not apply during Startup or Shutdown Periods. *[40 CFR 63.6(f)(1), NCUAQMD Rule 102 §5.0]*

Table 5.3 Diesel Mode Emission Limits – per engine

Pollutant	Emission Rate		
	ppmvd @ 15% O_2	lb/hr	lb/MMBtu
CO	20.0	6.9	0.047
NH_3	10	2.1	0.014
NOx	35.0	19.9	0.134
PM_{10}	-	10.8	0.137
ROC	40.0	7.9	0.053
SOx	0.40	0.22	0.0016

103. The discharge of Diesel Particulate Matter into the atmosphere from the reciprocating engines S-1 through S-10 while in Diesel Mode shall not exceed the

emission limits identified in Table 5.4 below. The limits shall not apply during the Commissioning Period as defined in this permit. *[NCUAQMD Rule 102 §5.0;]*

Table 5.4 Diesel Particulate Matter Limitations

Engines S-1 Through S-10	Diesel Particulate Matter (pounds)		
	Hourly 3 hr rolling average	Daily 24 hour rolling average	Annual 365 day rolling average
Per Engine	5.56	133.4	-
All Combined	55.6	1,334	5,560

104. The combined discharge of pollutants from the reciprocating engines S-1 through S-10 during any Calendar Day shall not exceed the limits listed in Table 5.5 below during any Calendar Day in which one or more of the engines are operated in diesel mode for any period of time. For purposes of compliance with this condition, the emissions from Startup and Shutdown Periods shall be included in the daily calculation of emissions.

Table 5.5 S-1 Through S-10 Combined Diesel Mode Limit

Pollutant	Emission Rate lb/Day
CO	2,219
NH_3	506
NOx	9,103
PM_{10}	1,542
ROC	2,183
SOx	97

For purposes of determining compliance with the daily PM_{10} limit in Table 5.5, the Permittee shall not operate reciprocating engines S-1 through S-10 in Diesel Mode for more than 142 engine-hours per day. Following completion of the PM_{10} emissions testing required under Condition #163 on all 10 engines, the Permittee may request the use of an alternative compliance demonstration method. Such a request shall include, but not be limited to the following:

C. Identification of the highest PM emission rates of the 10 units as determined during initial performance testing.

D. Identification of alternative operational limit(s) and/or alternative method(s) for determining compliance with the facility wide pound per day PM emission limit; and

E. Source test data and calculations demonstrating that revisions to emission factors and/or compliance determination method(s) are appropriate.

Upon written approval by the District of the alternative compliance demonstration method, the permit limitation on the number of hours of operation in Diesel Mode may

be modified. The highest PM pollutant values identified during the initial performance testing shall become the permitted emission limits for all engine units. In no event, shall the newly established emission limits be in excess of 10.8 lbs/hr. (the manufacturer's guaranteed emission rates indentified in the AFC), and in the ATC materials submitted by the applicant. In no event shall the facility wide daily limit of 1,542 pounds be increased, nor any operational activity permitted, which would allow an exceedance of any emission limitation. Compliance with the daily facility wide PM emission limit shall be calculated as a function of engine hourly emission rate times the number of hours of operation per day. *[NCUAQMD Rule 102 §5.0]*

105. The combined discharge of pollutants from the reciprocating engines S-1 through S-10 during any calendar year shall not exceed the limits listed in Table 5.6 below. *[NCUAQMD Rule 102 §5.0]*

Table 5.6 S-1 Through S-10 Combined Annual Emission Limits

Pollutant	Emission Rate Tons/Yr
CO	172.7
NH_3	63.3
NOx	179.1
PM_{10}	119.8
ROC	190.8
SOx	4.3

Engines S-11 and S-12

106. The Permittee shall not operate reciprocating engines S-11 and S-12 such that pollutant discharge into the atmosphere exceeds the quantities in Table 5.7 below. *[NCUAQMD Rule 102 §5.0]*

Table 5.7 Reciprocating Engines S-11 and S-12 Emission Limits

Unit	Pollutant	g/Hp – hr	lb/hr
S-11 Emergency Generator	CO	0.63	0.65
	DPM	0.05	0.05
	NOx	3.47	3.59
	ROC (non-methane HC)	0.4	0.41
	SOx	-	.0061
S-12 Fire Pump	CO	0.59	.27
	DPM	0.14	0.06
	NOx	4.9	2.27
	ROC (non-methane HC)	0.5	0.23
	SOx	-	0.0026

107. The combined discharge of pollutants from the reciprocating engines S-11 through S-12 during any calendar year shall not exceed the limits listed in Table 5.8 below. *[NCUAQMD Rule 102 §5.0]*

Table 5.8 S-11 and S-12 Combined Annual Emission Limits

Pollutant	Emission Rate lbs/Yr
CO	45
NOx	287
DPM	5.5
ROC	31.5
SOx	0.4

STARTUP COMMISSIONING & SIMULTANEOUS OPERATION

108. This Permit supplements existing NCUAQMD Permit Numbers for the HBPP of NS-020 (Boiler #1), NS-21 (Boiler #2) and NS-057 (Turbines) until such time as the sources are decommissioned. [*NCUAQMD Rule 102 §5.0]*

109. The Permittee shall notify the NCUAQMD of the anticipated date of initial startup of the reciprocating engines S-1 through S-10 not more than 60 days, or less than 30 days prior to initial startup. The Permittee shall notify the APCO of the actual startup of reciprocating engines S-1 through S-10 not more than 15 days after actual initial startup. *[NCUAQMD Rule 102 §5.0]*

110. The existing generating units at Humboldt Bay Power Plant shall be shut down as soon as possible following the commercial operation of all of the reciprocating engines S-1 through S-10. The existing generating units at Humboldt Bay Power Plant [NCUAQMD Permit Units NS-020 (Boiler #1), NS-21 (Boiler #2) and NS-57 (Turbines)] and any of the new HBRP reciprocating engines S-1 through S-10 shall not be in simultaneous operation for more than 180 calendar days, including their individual Commissioning Periods; and shall be shutdown and their Permits to Operate (PTOs) surrendered once engines S-1 through S-10 have successfully completed their Commissioning Phase as defined elsewhere in this permit. Operation of the existing plant units and any engine or engines for any portion of a calendar day, shall accrue toward the maximum limit of 180 days. *[NCUAQMD Rule 110, Rule 102 §5.0]*

111. Selective catalytic reduction (SCR) systems and oxidation catalysts shall serve each reciprocating engine except as provided for in Condition #114. Permittee shall submit SCR and oxidation catalyst design details to the NCUAQMD for review and approval at least 90 days prior to scheduled delivery of these systems to the site. The Permittee shall not install or operate the SCR and oxidation catalyst systems without authorization from the APCO. *[NCUAQMD Rule 110, Rule 102 §5.0]*

112. Permittee shall submit continuous emission monitor design, installation, and operational details to the NCUAQMD within 120 days following commencement of construction. *[NCUAQMD Rule 102 §5.0]*

113. In accordance with the NCUAQMD approved Commissioning Plan required under Condition #123, the reciprocating engines shall be tuned to minimize emissions in the time frame specified in the approved Commissioning Plan. *[NCUAQMD Rule 102 §5.0;]*

114. In accordance with the NCUAQMD approved Commissioning Plan required under Condition #123, the Selective Catalytic Reduction (SCR) system and the oxidation catalyst shall be installed, adjusted, and operated to minimize emissions from each reciprocating engine in the time frame specified in the Commissioning Plan. *[NCUAQMD Rule 102 §5.0;]*

115. The continuous monitors specified in Permit Conditions #75, #83, and #86 shall be installed, calibrated, and operational prior to the first firing of reciprocating engines S-1 through S-10. After first firing, the detection range of the CEMS shall be adjusted as necessary to accurately measure the resulting range of NOx and CO emission concentrations. *[NCUAQMD Rule 102 §5.0;]*

116. The Permittee shall record and monitor the parameters identified in Table 7.0 of this Permit at least once every 15 minutes (excluding normal calibration periods or when the monitored source is not in operation). The Permittee shall use APCO approved methods to calculate heat input rates, oxides of nitrogen mass emission rates (reported as nitrogen dioxide), carbon monoxide mass emission rates, and NOx and CO emission concentrations, summarized for each hour and each day. *[NCUAQMD Rule 102 §5.0; NCUAQMD Regulation Appendix B]*

117. The total number of firing hours of each reciprocating engine S-1 through S-10 without abatement of emissions by the SCR system and the oxidation catalyst shall not exceed 100 hours for each engine during the Commissioning Period. Such operation of each reciprocating engine without abatement shall be limited to discrete Commissioning Activities that can only be properly executed without the SCR system and the oxidation catalyst in place. Upon completion of these activities for each engine, the Permittee shall provide written notice to the NCUAQMD and the unused balance of the allowable firing hours without abatement for that engine shall expire. *[NCUAQMD Rule 102 §5.0]*

118. When one or more reciprocating engines S-1 through S-10 are undergoing Commissioning Activities without an SCR system and oxidation catalyst installed, the Permittee shall not: *[NCUAQMD Rule 102 §5.0]*

    a. Fire more than five uncontrolled reciprocating engines simultaneously.

    b. Operate the uncontrolled engines such that their combined hours of operation exceed 90 engine-hours during any Calendar Day.

c. Operate the uncontrolled engines such that their combined hours of operation while in the "alignment phase" exceed 13 engines-hours during any Calendar Day.

119. During the Commissioning Period while any of the engines are being operated without an SCR system and oxidation catalyst, the Permittee shall not operate reciprocating engines S-1 through S-10, such that the combined emissions from all of the engines regardless of their commissioning status, exceed any of the limits in Table 5.9 below: *[NCUAQMD Rule 102 §5.0]*

Table 5.9 S-1 through S-10 Combined Commissioning Emission Limits

Pollutant	lbs/hr	lbs/day
CO	197.2	2,662
NOx	323.3	4,365
PM_{10}	54	1,296
ROC (as Methane)	86.6	1,559
SOx (SO_2)	2.0	48.4

120. For each engine during its Commissioning Period, after four hours of steady-state operation of the SCR system and the oxidation catalyst has occurred, the NOx and CO emissions from that reciprocating engine shall thereafter comply with the limits specified in Permit Conditions #99 through #105. For purposes of compliance with this condition, steady-state operation shall mean: the engine, SCR system, and oxidation catalyst all functioning according to manufacturers specifications and operating in compliance with emission limits as determined by the CEMS. In no event, shall the Commissioning Period for each engine exceed 180 consecutive calendar days beginning on the first day the engine is first fired. *[NCUAQMD Rule 102 §5.0]*

121. Firing hours on 100% CARB Diesel Fuel or Alternative Liquid Fuel during the Commissioning Period shall not be considered Maintenance and Testing for purposes of compliance with the annual operating hour limitations specified in the Operational Conditions section of this Permit. *[NCUAQMD Rule 102 §5.0]*

122. The total mass emissions of NOx, CO, ROC, PM_{10}, and SOx that are emitted from the reciprocating engines during the Commissioning Period shall accrue towards the annual emission limits specified in Condition #107. *[NCUAQMD Rule 102 §5.0]*

123. The Permittee shall submit a plan to the NCUAQMD at least four weeks prior to the first operation of the first of reciprocating engines S-1 through S-10, describing the procedures to be followed during the Commissioning Period. The plan shall include a description of each Commissioning Activity, the anticipated duration of each activity in hours, and the purpose of the activity. The activities described shall include, but not be limited to, the tuning of the reciprocating engines, the installation and operation of the SCR systems and the oxidation catalysts, the installation, calibration, and testing of the NOx and CO continuous emissions

monitors, and any activities requiring the firing of each unit without abatement by an SCR system or oxidation catalyst. *[40 CFR Part 63; NCUAQMD Rule 102 §5.0]*

124. Not later than 90 days prior to first operation, the Permittee shall prepare and submit to the NCUAQMD for approval a plan for complying with the requirements of 40 CFR 63 Subpart ZZZZ. This compliance plan shall provide for an initial performance test on each engine to demonstrate that each oxidation catalyst is achieving a minimum 70% reduction in CO over a four hour period. During the initial performance test, the Continuous Emission Monitors shall successfully complete a performance evaluation in accordance using PS3 and 4A of 40 CFR Part 60 Appendix B; the oxidation catalyst pressure drop and inlet temperature shall be measured using ASTM D6522-00 [§63.6625(a)]; and the CEMS data collected in accordance with §63.6625(a) with the data reduced to 1-hour averages.

125. Not later than 90 days prior to first operation, the Permittee shall prepare and submit to the NCUAQMD for approval a plan for complying with the requirements of 40 CFR 60 Subpart IIII. This compliance plan shall provide for an initial performance test on each reciprocating engine to demonstrate compliance with the NOx and PM limitations of 40 CFR §60.4204(c)(1) and (c)(2) and shall establish operating parameters to be monitored continuously to ensure that each reciprocating engine continues to meet the applicable emission standards.

OPERATIONAL CONDITIONS

Engines S-1 through S-10

126. In the event of an excess emission incident, regardless of the cause, the Permittee shall immediately take corrective action to minimize the release of excess emissions. Notice shall be provided to the NCUAQMD as indicated in the Reporting and Recordkeeping Section of this Permit. For purposes of compliance with this condition, excess emissions shall mean discharge of pollutants in quantities which exceed those authorized by Federal, State, NCUAQMD Rules, and this Permit. *[40 CFR 70.6(a)(3)(iii)(B); NCUAQMD Rule 105 §5.0]*

127. All equipment listed in Table 1.0 Authorized Emission Devices and 2.0 Authorized Control Devices shall be operated and maintained by the Permittee in accordance with manufacturer's specifications for optimum performance; and in a manner so as to minimize emissions of air contaminants into the atmosphere. *[NCUAQMD Rule 102 §5.0]*

128. The Permittee shall implement and maintain a written Startup, Shutdown, and Malfunction Plan as described in as described in 40 CFR 63.6(e) (3) which contains specific procedures for maintaining the reciprocating engines S-1 through S-12, their associated control devices, their associated CEMS, sensors, measuring devices, and their associated exhaust gas duct work, during periods of startup, shutdown, and malfunction. The plan must clearly describe the startup and shutdown sequence procedure for each unit. The Plan shall also include a specific program of corrective actions to be implemented in the event of a malfunction in

either the process or control systems. Modifications to the Plan are subject to APCO approval and the Permittee shall not operate the reciprocating engines S-1 through S-12 and their associated control devices unless a NCUAQMD approved Startup, Shutdown, and Malfunction Plan is in effect. The Plan shall be submitted to the NCUAQMD not less than thirty (30) calendar days prior to the Commissioning Period for any of reciprocating engines S-1 through S-10. *[NCUAQMD Rule 102 §5.0]*

129. The Permittee shall develop, implement and maintain a written Device Operational Plan that contains specific procedures for operating the reciprocating engines S-1 through S-12, their associated control devices, their associated CEMS, sensors, measuring devices, and their associated exhaust gas duct work under the varying load conditions which may occur during normal modes of operation. The Plan shall also include specific protocols to be followed when transitioning between modes of operation. This plan shall be consistent with the requirements of this Permit, and all local, state and federal laws, rules, and regulations. The plan shall include, but not be limited to, daily system integrity inspections and the recording of operational parameters. The Plan shall be submitted to the NCUAQMD not more than sixty (30) calendar days following expiration of the Commissioning Period for any of reciprocating engines S-1 through S-10. The Plan is subject to APCO approval. The Permittee shall not operate the reciprocating engines S-1 through S-12 and their associated control devices, after the expiration of the Commissioning Period for any of the reciprocating engines plus 60 days, unless a NCUAQMD approved Device Operational Plan is in effect. *[NCUAQMD Rule 102 §5.0]*

130. The Permittee shall develop, implement and maintain a written Device Maintenance & Replacement Plan that contains specific procedures for equipment maintenance and identifies replacement intervals for components of the reciprocating engines S-1 through S-12, their associated control devices, their associated CEMS, sensors, measuring devices, and their associated exhaust gas duct work. The Plan shall be submitted to the NCUAQMD not more than thirty (30) calendar days following expiration of the Commissioning Period for any of reciprocating engines S-1 through S-10. The Plan is subject to APCO approval. The Permittee shall not operate the reciprocating engines S-1 through S-12 and their associated control devices, after the expiration of the Commissioning Period for any of the reciprocating engines plus 60 days, unless a NCUAQMD approved Device Maintenance & Replacement Plan is in effect. *[NCUAQMD Rule 102 §5.0]*

131. The Permittee shall only operate the Reciprocating engines S-1 through S-10 in Natural Gas Mode except during the Commissioning Period, during Maintenance and Testing, and during Natural Gas Curtailments as set forth in this permit. *[NCUAQMD Rule 102 §5.0]*

132. The Permittee shall not operate reciprocating engines S-1 through S-10 such that Startup Periods exceed 60 minutes in length. *[NCUAQMD Rule 102 §5.0]*

133. The Permittee shall not operate reciprocating engines S-1 through S-10 such that Shutdown Periods exceed 30 minutes in length. *[NCUAQMD Rule 102 §5.0]*

134. The Permittee shall not operate the reciprocating engines S-1 through S-10 such that the combined hours of operation during Startup and Shutdown Periods exceeds 30 engine-hours per day. *[NCUAQMD Rule 102 §5.0]*

135. The Permittee shall not operate the reciprocating engines S-1 through S-10 such that the combined hours of operation during Startup and Shutdown Periods exceeds 3,650 engine-hours per calendar year. Of the 3,650 engine hours available hours, the hours of operation during Startup and Shutdown Periods in Diesel Mode shall not exceed 500 engine-hours per calendar year. *[NCUAQMD Rule 102 §5.0]*

136. The Permittee shall not operate any of the reciprocating engines S-1 through S-10 below 50% load except during Startup and Shutdown Periods. *[NCUAQMD Rule 102 §5.0]*

137. The Permittee shall not operate the reciprocating engines S-1 through S-10 for more than 80 engine-hours per Calendar Day at loads less than 12.0 MW. *[NCUAQMD Rule 102 §5.0]*

138. While operating the reciprocating engines S-1 through S-10 in Diesel Mode, the Permittee shall fire the engines:

    a. Only with CARB Diesel as specified in Table 1.4 Fuel Specifications for S-1 through S-10;

    b. For more than 50 hours per year for maintenance and testing per engine; and

    c. Such that the combined engine operating hours do not exceed 1000.0 engine hours per year on a 365 day rolling average basis.

139. For each Oxidation Catalyst installed, during the performance testing required pursuant to the Testing and Monitoring section of this Permit, the Permittee shall determine the pressure drop across each catalyst. The Permittee shall operate the reciprocating engines S-1 through S-10 such that the pressure drop across the catalyst does not exceed the following acceptable range for any period of time: The acceptable pressure range is two inches of water column (plus or minus 10%) deviation from the pressure drop established during performance testing. *[40 CFR 63 Subpart ZZZZ]*

140. The Permittee shall not operate reciprocating engines S-1 through S-10 if the inlet temperature of the oxidation catalyst is outside of the acceptable operating range for any period of time. The acceptable operating range of the oxidation catalyst is greater than or equal to 450 ˚F and less than or equal to 1350 ˚F. Each reciprocating engine is paired with a single oxidation catalyst unit. For purposes of compliance with this condition, each engine and catalyst pair is evaluated separately. This Condition does not apply during Startup or Shutdown Periods or during malfunctions. *[40 CFR 63 Subpart ZZZZ]*

141. The Permittee shall not operate reciprocating engines S-1 through S-10 unless the CO emissions from the units are abated by the oxidation catalyst at a rate greater than or equal to 70% over uncontrolled emission levels, calculated on a 3 hour rolling average. Verification of the emissions reduction shall be completed in accordance with 40 CFR 63 Subpart ZZZZ. This Condition does not apply during Startup or Shutdown Periods or during malfunctions. [*40 CFR 63 Subpart ZZZZ]*

Engines S-11 and S-12

142. The Permittee shall not operate the reciprocating engines S-11 and S-12, for the purpose of maintenance and testing, in excess of the hour limits listed in Table 6.1 below *[NCUAQMD Rule 102 §5.0*]:

Table 6.1 S-11 and S-12 Hourly Operating Limits

Device	Daily	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
S-11	1	12	12	13	13
S-12	1	12	12	13	13

143. The Permittee shall not operate the reciprocating engines S-11 and S-12, for the purpose of maintenance and testing, within the same 24 hour period. [NCUAQMD Rule 102 §5.0]

144. The Permittee shall not operate the reciprocating engines S-11 and S-12, for the purpose of maintenance and testing, when any of the reciprocating engines S-1 through S-10 are operating in diesel mode. [*NCUAQMD Rule 102 §5.0]*

145. The Permittee shall not operate reciprocating engine S-11, for the purpose of maintenance and testing, for more than 45 minutes in any 60 minute period. *[NCUAQMD Rule 102 §5.0]*

REPORTING & RECORDKEEPING

146. The Permittee shall report all occurrences of breakdowns of the equipment listed in Table 1.0 Authorized Emission Devices or Table 2.0 Authorized Control Devices which result in the release of emissions in excess of the limits identified in this Permit. Said report shall be submitted to the NCUAQMD in accordance with the timing requirements of NCUAQMD Rule 105 §5.0.

147. The Permittee shall maintain a Breakdown log that describes the breakdown or malfunction, includes the date and time of the malfunction, the cause of the malfunction, corrective actions taken to minimize emissions and the date and time when the malfunction was corrected. *[NCUAQMD Rule 102 §5.0]*

148. The Permittee shall immediately record the following information when an event occurs where emissions from the equipment listed in Table 1.0 Authorized Emission Devices are in excess of any limits incorporated within this permit:
    a. Date and time of the excess emission event
    b. Duration of the excess emission event
    c. Description of the condition or circumstance causing or contributing to the excess emission event
    d. Emission unit or control device or monitor affected
    e. Estimation of the quantity and type of pollutants released
    f. Description of corrective action taken
    g. Actions taken to prevent reoccurrence of excess emission event.

149. The Permittee shall provide to the NCUAQMD, a completed "Compliance Certification" form signed by the Facility's Responsible Official which certifies the compliance status of the facility twice per calendar year. The compliance certification form must be submitted to the NCUAQMD according to the following schedule: The semiannual certification (covering quarters 1 and 2) must be submitted prior to July 31st of the reporting year; and the annual certification (covering quarters 1, 2, 3, and 4) prior to March 1st of the following calendar year. The content of the Certification shall include copies of the records designated in Table 7.0 to be kept "Annually".

150. The Permittee shall maintain a monthly log of usage for the Emergency IC Diesel Generators S-11 and S-12 in accordance with applicable Reporting Requirements for Emergency Standby Engines, Item (e)(4)(I) of Section 93115, Title 17, California Code of Regulations, Air Toxic Control Measure (ATCM) for Stationary Compression Ignition (CI) engines. The monthly log of usage shall list and document the nature of use for each of the following by recording the hour meter readings for each operational event:
    a. Emergency use hours of operation;
    b. Maintenance and testing hours of operation (e.g., load testing, weekly testing, rolling blackout, general power outage, etc
    c. Hours of operation for emission testing to show compliance with §93115(e)(2)(A)3 and (e)(2)(B)3 of the ATCM;
    d. Hours of operation to comply with requirements of NFPA 25;
    e. Hours of operation for all other uses other than those specified in section (e)(2)(A)3 and (e)(2)(B)3 of the ATCM;
    f. Fuel used through the retention of fuel purchase records that account for all fuel used in the engine and all fuel purchased for use in the engine, and, at a minimum, contain the following information for each individual fuel purchase transaction:
        i. Identification of the fuel purchased as either CARB Diesel, or an alternative diesel fuel that meets the requirements of the Verification Procedure;
        ii. Sulfur content of the fuel;
        iii. Amount of fuel purchased;
        iv. Date when the fuel was purchased;

v. Signature of owner or operator or representative of Permittee who received the fuel; and
vi. Signature of fuel provider indicating fuel was delivered.

151. The Permittee shall continuously maintain onsite for the most recent five year period and shall be made available to the NCUAQMD APCO upon request, the records as listed in Table 7.0 below.

Table 7.0 Required Records for Engines S-1 through S-10

Frequency	Information to be Recorded
Upon Occurrence	A. Records of maintenance conducted on engines (40 CFR 60 Subpart IIII) B. Time, duration, and fuel firing mode for each engine startup C. Time, duration, and fuel firing mode for each engine shutdown D. Time, duration and reason for each period of operation in Diesel Mode E. For each bulk delivery of diesel fuel received, certification from the supplier that the diesel fuel meets or exceeds CARB Diesel specifications F. For each bulk delivery of diesel fuel received, the higher heating value (HHV) and sulfur content of the fuel G. Fuel Mode – each operating minute shall be designated as either "Natural Gas" or "Diesel Mode"
At least one electronic reading every 15 minutes	A. NOx (ppmvd @15% O_2) B. CO (ppmvd @15% O_2) C. O_2 (%) D. Exhaust gas temperature as SCR inlet (˚F) E. Exhaust gas temperature at OC inlet (˚F) F. Engine load (%)
Hourly (for each engine)	A. NOx (ppmvd @15% O_2) and lb/hr, on a rolling 3 hour average B. CO (ppmvd @15% O_2) and lb/hr, on a rolling 3 hour average C. ROC (ppmvd @15% O_2) and lb/hr, on a rolling 3 hour average D. NH3 (ppmvd @15% O_2) and lb/hr, on a rolling 3 hour average E. SOx (ppmvd @15% O_2) and lb/hr, on a rolling 3 hour average F. Natural gas fuel consumption (MMBtu HHV, 3-hr rolling average) G. Diesel fuel consumption during Diesel Mode (MMBtu HHV, 3-hr rolling average) H. Volumetric proportion of natural gas to diesel pilot injection when operating in Natural Gas Mode
Daily	A. NOx (lbs/day, total for all engines) B. CO (lbs/day, total for all engines) C. ROC (lbs/day, total for all engines) D. SOx (lbs/day, total for all engines)

Frequency	Information to be Recorded
	E. PM (lbs/day, total for all engines) F. Diesel Particulate Matter (lbs/day, total for all engines) G. Natural gas fuel consumption (MMBtu HHV, for each engine and total for all engines) H. Diesel pilot fuel consumption (MMBtu HHV, all engines combined) I. Diesel fuel consumption during Diesel Mode (MMBtu HHV, for each engine and total for all engines) J. Engine load (% load on a 24 hour average for each engine and total for all engines) K. Hours of operation (each engine and total for all engines as a sum of operating minutes) L. Quantity of fuel combusted (therms and gallons for each engine and total for all engines)
Monthly	A. Sulfur content of natural gas (gr/100scf, monthly fuel testing) B. Natural gas sulfur content (gr/100scf, 12 month rolling average)
Quarterly (combined total for all engines)	A. NOx (tons) B. CO (tons) C. SOx (tons) D. ROC(tons) E. PM (tons) F. Diesel Particulate Matter (tons) G. Natural gas fuel consumption (MMBtu HHV) H. Diesel pilot fuel consumption (MMBtu HHV) I. Diesel fuel consumption during Diesel Mode (MMBtu HHV) J. Sulfur content of natural gas (gr/100scf, 12 month rolling average) K. Hours of operation (for each fuel mode) L. Quantity of fuel combusted (therms, gallons)
Annually (combined total for all engines)	A. NOx (tons) B. CO (tons) C. SOx (tons) D. ROC(tons) E. PM (tons) F. Diesel Particulate Matter (tons) G. Natural gas fuel consumption (MMBtu HHV) H. Diesel pilot fuel consumption (MMBtu HHV) I. Diesel fuel consumption during Diesel Mode (MMBtu HHV) J. Sulfur content of natural gas (gr/100scf, annual average) K. Hours of operation (for each fuel mode) L. Quantity of fuel combusted (therms, gallons)

152. For each Quarter, the Permittee shall submit a written report to the APCO detailing the following items for the operation of the CEMS. The report shall conform to the requirements of NCUAQMD Rules and Regulations Appendix B, Section 2.2, and shall be submitted within 30 days of the end of the quarter.

    a. Time intervals;

    b. Date and magnitude of excess emissions;

    c. Nature and cause of excess (if known);

    d. Corrective actions taken and preventive measures adopted;

    e. Averaging period used for data reporting shall correspond to the averaging period for each respective emission standard;

    f. Applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and

    g. A negative declaration when no excess emissions occurred.

153. The Permittee shall provide notification and record keeping as required pursuant to 40 CFR, Part 60, Subpart A, 60.7.

154. The Permittee shall annually prepare and submit a comprehensive facility wide emission inventory report for all criteria pollutants and toxic air contaminants emitted from the facility. The inventory and report shall be prepared in accordance with the most recent version of the CAPCOA / CARB reference document *Emission Inventory Criteria Guidelines*. The inventory report shall be submitted to the NCUAQMD APCO no later than March 1st of the following calendar year. The inventory report is subject to NCUAQMD APCO approval. *[NCUAQMD Rule 102 §5.0]*

155. The Permittee shall submit the health risk assessment protocol to the NCUAQMD APCO for review no later than 9 months after the Commissioning Period for the reciprocating engines S-1 through S-10 has concluded. *[NCUAQMD Rule 102 §5.0]*

156. No later than 14 months after the Commissioning Period for reciprocating engines S-1 through S-10 has concluded, the Permittee shall submit to the NCUAQMD APCO a revised health risk assessment. The health risk assessment shall be prepared pursuant to an NCUAQMD APCO approved protocol based upon CARB and California Office of Health and Hazard Assessment guidance documents. *[NCUAQMD Rule 102 §5.0]*

157. Not later than 24 hours after determining that diesel mode operation is to occur as a result of an expected Natural Gas Curtailment, the permittee shall notify the APCO by telephone, email, electronic page, or facsimile. The notification shall include, but not be limited to, the following *[NCUAQMD Rule 102 §5.0]*:

    a. The anticipated start time and duration of operation in diesel mode under the Natural Gas Curtailment; and

    b. The anticipated quantity of Diesel fuel expected to be burned under the Natural Gas Curtailment.

158. Not later than 24 hours following the end of a period of any diesel mode operation, the permittee shall notify the APCO by email or facsimile of the following [*NCUAQMD Rule 102 §5.0]* :

    a. The actual start time and end time of the period of diesel mode operation;

    b. The identification of the Reciprocating engines that were operated and the average load at which each reciprocating engine was operated on Diesel fuel during the diesel mode operating period; and

    c. The actual quantity of Diesel fuel consumed during the diesel mode operation.

TESTING & COMPLIANCE MONITORING

159. The Permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F.

160. The Permittee shall monitor and record exhaust gas temperature at the inlet and at the outlet of the oxidation catalyst. *[40 CFR 63 Subpart ZZZZ]*

161. Not less than thirty days prior to the date of any source test required by this Permit, the Permittee shall provide the NCUAQMD APCO with written notice of the planned date of the test and a copy of the source test protocol.

162. Source test results shall be summarized in a written report and submitted to the NCUAQMD APCO directly from the independent source testing firm on the same day, the same time, and in the same manner as submitted to Permittee. Source Test results shall be submitted to the NCUAQMD APCO no later than 60 days after the testing is completed.

163. The Permittee shall demonstrate compliance with all the emission limits identified in this Permit during the Commissioning Period of each of the reciprocating engines S-1 through S-10 using the following methods. Testing shall be conducted both while the engines are operated in Natural Gas Mode and while operated in Diesel Mode. All compliance tests shall be conducted at 50%, 75%, and 95% or greater of the operating capacity of each reciprocating engine. Alternative test methods may be approved by the APCO.

a. Particulate Matter – CARB Method 5 (front and back half) or EPA Methods 201a and 202
b. Diesel Particulate Matter – CARB Method 5 (front half)
c. Visible Emissions
    i. Permittee shall perform a "Visible Emission Evaluation" (VEE) concurrent with particulate matter testing. A CARB certified contractor shall perform such an evaluation.
d. Ammonia – Bay Area Air Quality Management NCUAQMD Method ST-1B
e. Reactive Organic Gases – CARB Method 100
f. Nitrogen Oxides – CARB Method 100
g. Carbon Monoxide – CARB Method 100 & ASTM D6522-00 [NESHAP ZZZZ]
h. Oxygen – CARB Method 100 & ASTM D6522-00 [NESHAP ZZZZ]
    i. Oxygen shall be measured at the inlet and outlet of the oxidation catalyst
    ii. Oxygen measurements shall be made at the same time as the CO measurements
    iii. Pressure drop measurements across the catalyst shall be made at the same time as the CO measurements
i. Natural Gas Fuel Sulfur Content – ASTM D3246
j. Liquid Fuel Sulfur Content – ASTM D5453-93

164. The Permittee shall demonstrate compliance with all the emission limits identified in this Permit for the reciprocating engines S-1 through S-10 once per calendar year unless indicated below, using the following methods. Except as provided in Condition #123, testing shall be conducted while the engines are operated in Natural Gas Mode. All compliance tests shall be conducted at an operating capacity of 50%, 75%, or 95% or greater during the testing of each reciprocating engine. Alternative test methods may be approved by the APCO. *[NCUAQMD Rule 102 §5.0]*

    a. Particulate Matter – CARB Method 5 (front and back half) or EPA Methods 201a and 202
    b. Diesel Particulate Matter – CARB Method 5 (front half)
    c. Visible Emissions - Permittee shall perform a "Visible Emission Evaluation" (VEE) concurrent with particulate matter testing. A CARB certified contractor shall perform such an evaluation.
    d. Ammonia – Bay Area Air Quality Management NCUAQMD Method ST-1B
    e. Reactive Organic Gases – CARB Method 100
    f. Nitrogen Oxides – CARB Method 100
    g. Carbon Monoxide – CARB Method 100
    h. Oxygen – CARB Method 100
        i. Oxygen shall be measured at the inlet and outlet of the oxidation catalyst
        ii. Oxygen measurements shall be made at the same time as the CO measurements

iii. Pressure drop measurements across the catalyst shall be made at the same time as the CO measurements

i. Natural Gas Fuel Sulfur Content – ASTM D3246
j. Liquid Fuel Sulfur Content – ASTM D5453-93

165. The engines shall be tested on a rotating basis with all of the engines to be tested in natural gas mode each year and all engines tested at the three different load values at least once every three years; and that each engine is tested at a different load each year. Each engine shall be tested, at the following loads (50%, 75%, ≥95%) or under conditions determined by the APCO to most challenge the emission control equipment. The APCO may waive some or all of the testing requirements if the results of previous compliance tests have demonstrated compliance with permitted emission limits by a sufficient margin. *[NCUAQMD Rule 102 §5.0]*

166. Permittee shall demonstrate compliance with permitted emission limits for Engines S-1 through S-10 while operating in Diesel Mode once every three years or following each 200 hours of operation of an individual engine in Diesel mode whichever is sooner. Compliance shall be demonstrated as indicated below using the following methods. All compliance tests shall be conducted while an engine is operated in Diesel mode at 50%, 75% or 95% or greater operating capacity of each engine; or under conditions determined by the APCO to most challenge the emission control equipment. Alternative test methods may be approved by the APCO *[NCUAQMD Rule 102 §5.0]*:

a. Particulate Matter - CARB Method 5 (front and back half), or EPA Methods 201a and 202.
b. Diesel Particulate Matter – CARB Method 5 (front half only)
c. Visible Emissions - U.S. EPA Method 9
d. Ammonia – Bay Area Air Quality Management NCUAQMD Method ST-1B
e. Reactive Organic Gases – ARB Method 100
f. Nitrogen Oxides -- ARB Method 100
g. Carbon Monoxide – ARB Method 100
i. CO shall be measured at the inlet and outlet of the oxidation catalyst.
h. Oxygen – ARB Method 100
i. Oxygen shall be measured at the inlet and outlet of the oxidation catalyst.
ii. Oxygen measurements shall be made at the same time as the CO measurements.
i. Liquid Fuel Sulfur Content – ASTM D5453-93

167. The engines shall be tested at various loads (50%, 75%, ≥95%) on a rotating basis, with one-third of the engines to be tested in diesel mode in each year; and tested at each of the three loads. The APCO may waive some or all of the testing requirements if the results of previous compliance tests have demonstrated compliance with permitted emission limits by a sufficient margin. The engines shall be tested on a rotating basis with all engines tested at the three different load values at least once every nine years; and that each engine is tested at a different

load each rotation. *[NCUAQMD Rule 102 §5.0]*

168. The Permittee shall demonstrate compliance with the hourly, daily, and annual ROC emission limits through the use of valid CO CEM data and the ROC/CO relationship determined by annual CO and ROC source tests; and APCO approved emission factors and methodology. *[40 CFR 63 Subpart ZZZZ; NCUAQMD Rule 102 §5.0]*

169. The Permittee shall demonstrate compliance with the hourly, daily, and annual SOx emission limits through the use of valid fuel use records, natural gas sulfur content, diesel fuel sulfur content, mass balance calculations; and APCO approved emission factors and methodology. The natural gas sulfur content shall be determined on a monthly basis using ASTM D3246. *[NCUAQMD Rule 102 §5.0, PSD]*

170. The Permittee shall demonstrate compliance with the hourly, daily, and annual PM emission limits, and the diesel particulate matter emission limits, through the use of valid fuel use records, source tests, and APCO approved emission factors and methodology. *[NCUAQMD Rule 102 §5.0, PSD]*

171. Relative accuracy test audits (RATAs) shall be performed on each CEMS at least once every twelve months, in accordance with the requirements of 40 CFR 60, Appendix B. Calibration Gas Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The NCUAQMD shall be notified in writing at least 30 days in advance of the scheduled date of the audits. Audit reports shall be submitted along with quarterly compliance reports to the NCUAQMD within 60 days after the testing was performed.

LOCAL ENFORCEABLE ONLY, EQUIPMENT SPECIFIC REQUIREMENTS

FUEL USAGE

172. The Emergency IC Diesel Generators S-11 and S-12 shall use one of the following fuels:
    a. CARB Diesel Fuel, or
    b. An alternative diesel fuel that meets the requirements of the Verification Procedure (as codified in CCR Title 13 Sections 2700-2710), or
    c. CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure (as codified in CCR Title 13 Sections 2700-2710), or
    d. Any combination of a) through d) above.

EMISSIONS

173. The Permittee shall not discharge diesel particulate matter from reciprocating engines S-1 through S-10 while operating in Diesel Mode such that emissions of Diesel Particulate Matter exceed 0.15 g/bhp-hr. [*CCR Title 17 §93115*]

OPERATIONAL CONDITIONS

174. While operating the reciprocating engines S-1 through S-10 in Diesel Mode, the Permittee shall fire the engines for no more than 50 hours per year for each engine for Maintenance and Testing. [*CCR Title 17, §93115*]

175. The Emergency IC Diesel Generators S-11 and S-12 are authorized the following maximum allowable annual hours of operation as listed in Table 6.0 below *[17 CCR §93115] :*

Table 6.0 Hours of Operation for Emergency IC Diesel Generators S-11 & S-12

Emergency Use	Non-Emergency Use	
	Emission Testing to show compliance	Maintenance & Testing
Not Limited by the ATCM	Not Limited by the ATCM	50 hours/year

AMBIENT MONITORING

176. No later than 180 days after construction of the equipment authorized pursuant to this permit begins, and concurrent with the commencement of operation, the Permittee shall provide full funding for the purchase and installation of a new monitoring station (Shelter; CO, NOx, PM10/PM2.5, and other sampling equipment as determined by the APCO) to be installed at a location approved by the APCO. The funding shall include all costs associated with the purchase, installation, operation and maintenance (including personnel costs) of the monitoring station for an initial period of not less than five (5) years. PG&E shall reimburse the District for costs incurred within 30 days of receiving an invoice from the District. At the conclusion of that period, the APCO may extend the operation of the site if deemed in the best interest of the District, and PG&E will continue to fund all costs associated with its continued operation. The District shall manage the procurement, operation and maintenance of the site, and District staff will be responsible for collecting, securing, and quality assuring all data. *[District Rule 102 §5.0]*

177. No later than 180 days after construction of the equipment authorized pursuant to this permit begins, and concurrent with the commencement of operation, the Permittee shall provide full funding for the purchase and installation of a new meteorological monitoring station to be installed at a location approved by the APCO. The funding shall include all costs associated with the purchase, installation, operation and maintenance (including personnel costs) of the meteorological monitoring station for an initial period of not less than five (5) years. PG&E shall reimburse the District for costs incurred within 30 days of receiving an invoice from the District. At the conclusion of that period, the APCO may extend the operation of the site if deemed in the best interest of the District, and PG&E will continue to fund all costs associated with its continued operation. The District shall

manage the procurement, operation and maintenance of the site, and District staff will be responsible for collecting, securing, and quality assuring all data. The data collected at the station shall meet the requirements of EPA-454/R-99-005 "Meteorological Monitoring Guidance for Regulatory Modeling Applications" February 2000. *[District Rule 102 §5.0]*

INSIGNIFICANT EMISSIONS UNITS

The following systems are considered insignificant emissions units and are not subject to equipment specific requirements. However, these units are required to comply with all applicable Federal and Local Enforceable Only general requirements:

Exempt Equipment	Equipment Description	Basis for the Exemption
Air Conditioning Units	Comfort Air Conditioners	NCUAQMD Rule 200(d)(8)
Fuel Dispensing Facility		NCUAQMD Rule 200(d)(8)
Fuel Oil Service Tank #1		NCUAQMD Rule 200(d)(8)
Fuel Oil Service Tank #2		NCUAQMD Rule 200(d)(8)
Fuel Oil Storage Tank #1		NCUAQMD Rule 200(d)(8)
Fuel Oil Storage Tank #2		NCUAQMD Rule 200(d)(8)
Gasoline Storage		NCUAQMD Rule 200(d)(8)
Distilled Oil Storage Tank		NCUAQMD Rule 200(d)(8)
Lube Oil Tanks		NCUAQMD Rule 200(d)(8)
Oil/Water Separator		NCUAQMD Rule 200(d)(8)
Portable Sandblasting Unit		NCUAQMD Rule 200(d)(8)
Sandblasting and Print Facility		NCUAQMD Rule 200(d)(8)
Shop Cold Solvent Cleaner		NCUAQMD Rule 200(d)(8)
Unconfined Solvent and Paint Use	General Operations (facility wide)	NCUAQMD Rule 200(d)(8)
Welding Shop		NCUAQMD Rule 200(d)(8)
Wipe Cleaning Operations	General Operations (facility wide)	NCUAQMD Rule 200(d)(8)
Any equipment or activity not specifically identified by this Permit		NCUAQMD Rule 200(d)(8)

AUTHORIZING SIGNATURE

**NORTH COAST UNIFIED
AIR QUALITY
MANAGEMENT DISTRICT**

2300 MYRTLE AVENUE
EUREKA, CALIFORNIA 95501

PHONE (707) 443-3093
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DATE: April 14th 2008

BY: _____

RICHARD L. MARTIN, JR.
AIR POLLUTION CONTROL OFFICER

Permit Seal