

PERMIT TO OPERATE

NCU 097-12

**BLUE LAKE POWER COMPANY, LLC
BLUE LAKE, CA**

**Issue Date: MARCH 18, 1998
First Revision: AUGUST 10, 1999
Transfer of Ownership: May 18, 2010**

**NORTH COAST UNIFIED
AIR QUALITY
MANAGEMENT DISTRICT**

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NORTH COAST UNIFIED AIR QUALITY MANAGEMENT DISTRICT

PERMIT TO OPERATE

NCU 097-12

THE BLUE LAKE POWER COMPANY, LLC

LEGAL OWNER OR OPERATOR: The Blue Lake Power Company
1615 Continental Street, Suite 100
Redding, CA 96001
Responsible Official: Glenn A. Zane
Plant Contact: Randy Paterson
(707) 845-4831

BUSINESS ACTIVITY: Wood fired steam generation plant producing electricity for sale to PG&E and other customers.

EQUIPMENT LOCATED AT: The plant is located in the northwestern portion of California within the County of Humboldt and is about 20 miles to the northwest of Eureka, the County seat and is located in the city of Blue Lake. The plant is located in an Industrial area of the city adjacent to the mad River. Blue Lake is located on relatively flat terrain within the confines of the Mad River Valley.

Whereas a timely application for a Permit to Operate has been made by The Blue Lake Power Company, LLC (hereinafter called the Permittee) pursuant to Regulation 5 (implementation of federal Title V operating permits) of the Rules and Regulations of the North Coast Unified Air Quality Management District (hereinafter called the District), and said application has been reviewed and found complete by the Air Pollution Control Officer of said District (hereinafter referred to as the Control Officer or NCUAQMD).

Unless otherwise noted, all requirements in this PERMIT are federally enforceable.

This is your Permit to Operate (hereinafter called PERMIT) subject to the following terms and conditions:

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LIST OF ABBREVIATIONS

Administrator	Administrator of the Environmental Protection Agency
Act	Clean Air Act
CARB	California Air Resources Board
CEMS	continuous emissions monitoring system
CFR	Code of federal regulations
CO	carbon monoxide
CO ₂	carbon dioxide
dscf	dry standard cubic foot
deg. F	degrees Fahrenheit
District	North Coast Unified Air Quality Management District
EPA	U.S. Environmental Protection Agency
gpm	gallons per minute
gr/acf	grains per actual cubic foot
gr/dscf	grains per dry standard cubic foot
lbs/hr	pounds per hour
MMBtu	million British thermal units
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
O ₂	oxygen
pH	hydrogen ion concentration in a solution
ppmv	parts per million by volume
PSD	Prevention of Significant Deterioration
tpy	tons per year
unit	single emissions unit

PERMIT UNITS

A. Combustion Processes

(1) Permit Number **NS-071(Steam Generator)**.

Name - Boiler

I. BASIC EQUIPMENT - The permittee operates a 118,000 pounds steam per hour (185 million Btu/hr heat input) boiler manufactured by Zurn Corporation. An ash reburn chamber is utilized to burn the carbon contained in the ash from the air preheater dropout, and multiclone dropout. Heat from the reburn chamber is directed into the combustion chamber above the grates. The facility uses a 80 million Btu/hr propane burner for use during startups, shutdowns and periods of poor wood combustion.

II. CONTROL EQUIPMENT - Particulate matter is controlled with mechanical multiclones followed by an electrostatic precipitator manufactured by Research Cottrell Corporation. The unit has two separate transformer/rectifier fields and a collection plate area of 21,002 sq.ft. The two fields are rated at 85 KVA. A forced overfire air system is utilized to help control gaseous emissions.

III EMISSIONS LIMITATIONS

A. Particulate Matter

1. Particulate loading - The permittee shall not discharge particulate matter into the atmosphere in excess of 0.04 pounds per million Btu of heat input [Regulation 1, Rule 220(b) Authority to Construct dated 1/12/84 and reissued on 6/13/86, 10/20/87 and 9/24/91].

2. Visible emissions - The permittee shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. The opacity standard applies at all times except during periods of startup, shutdown, or malfunction [40 CFR 60.43b(f)] [Regulation 1, Rule 220(b) Authority to Construct dated 1/12/84 and reissued on 6/13/86, 10/20/87 and 9/24/91].

B. Carbon Monoxide - The permittee shall not discharge carbon monoxide into the atmosphere in excess of 1.00 pounds per million Btu of heat input on a 3-hour average basis [Regulation 1, Rule 220(b) Authority to Construct dated 1/12/84 and reissued on 6/13/86, 10/20/87 and 9/24/91].

C. Nitrogen Oxides - The permittee shall not discharge nitrogen oxides (as nitrogen dioxide) into the atmosphere in excess of 0.15 pounds per million Btu of heat input on a 3-hour average basis [Regulation 1, Rule 220(b) Authority to Construct dated 1/12/84 and reissued on 6/13/86, 10/20/87 and 9/24/91].

IV. COMPLIANCE MONITORING

A. The following methods shall be used for determining compliance with the above emissions limitations:

1. Particulate Matter - CARB Method 5 or other EPA approved method.

The permittee shall be required to have particulate matter from the boiler tested once per calendar year. If the compliance test result is less than one-half the permitted limit, then the next year compliance test may be waived by the District [Regulation 1, Rule 240(d)].

2. Visible Emissions - The permittee shall operate at all times a continuous opacity monitoring system (COMS) [40 CFR 60.48b(a)].

a. 40 CFR 60, Appendix B, Performance Specification 1 shall be the basis for the operation of the COMS [40 CFR 60.49b(b)].

3. Carbon Monoxide and Nitrogen Oxides - CARB Method 100 or other EPA approved method.

No later than July 1, 1999, the permittee shall install, operate at all times and maintain a continuous emissions monitoring system (CEMS) for the determination of carbon monoxide and nitrogen oxides from the boiler. The CEMS shall be operated

in conformance with 40 CFR, Part 60, Appendix B, Performance Specifications, and Appendix F, Quality Assurance Procedures[Regulation 1, Rule 240(d)]. Monitoring shall be conducted in accordance with 40 CFR Part 60.13 unless a more restrictive requirement is contained in the permit.

V. REPORTING AND RECORDKEEPING - see General Provisions, section F.

- A.** The permittee shall maintain data on the operation of the boiler which shall include the temperature, pressure and flow of steam production[Regulation 1, Rule 220(b) Authority to Construct dated 1/12/84 and reissued on 6/13/86, 10/20/87 and 9/24/91].
- B.** The permittee shall maintain records of opacity 6-minute averages[40 CFR 60.49b(f)].
- C.** The permittee shall report all occurrences of excess emissions to the District in accordance with the timing requirements of Regulation 1, Rule 540, Equipment Breakdown[Regulation 1, Rule 240(d)].
- D.** A monthly report shall be required which identifies any deviation from these permit requirements including a summary of those deviations attributable to breakdowns reported in accordance with Rule 540. Beginning July 1, 1999 this report shall also include the daily and monthly averages of carbon monoxide, nitrogen oxides, and oxygen emissions. The report shall be due no later than the fifteenth day of the following month[Regulation 1, Rule 240(d)].
- E.** The permittee shall maintain records of the hourly, daily and monthly averages for carbon monoxide, nitrogen oxides, and oxygen beginning July 1, 1999[Regulation 1, Rule 240(d)].
- F.** The permittee shall maintain propane fuel usage information in order to calculate the annual capacity factor[40 CFR 60.49b(d)].

VI. OPERATING CONDITIONS - see General Provisions, section C.

- A.** The boiler shall be fired only with wood wastes and propane. Wood waste means sawmill or lumber wastes; or vegetation which are not treated with any chemicals. Painted wood is allowable provided that the paint is tested for lead. Lumber painted with lead based paints shall not be burned in the boiler[Regulation 1, Rule 240(d)].
- B.** The steam production from the boiler shall not exceed 118,000 pounds per hour on a monthly average basis[Regulation 1, Rule 220(b) Authority to Construct dated 1/12/84 and reissued on 6/13/86, 10/20/87 and 9/24/91].
- C.** The permittee shall continuously operate and maintain an electrostatic precipitator on the exhaust of the boiler[Regulation 1, Rule 220(b) Authority to Construct dated 1/12/84 and reissued on 6/13/86, 10/20/87 and 9/24/91].
- D.** The annual capacity factor for propane shall not exceed 10% for a calendar year[40 CFR 60.44b(d)]. This equates to a limitation of 1.78 million gallons of propane per calendar year. The annual capacity factor for propane is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of propane, by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum design heat input capacity[40 CFR 60.43b(e)].

B. Exempt Equipment

Equipment and operations not specifically identified in this permit are not subject to specific federally-enforceable operating conditions or emission limitations. Such equipment and operations are subject to applicable General Provisions of this permit.

GENERAL PROVISIONS

These general provisions apply to all facilities or sources owned or operated by the permittee as detailed in this permit.

- A. Fee Payment** - The Permittee shall pay an annual permit fee and other fees as required in accordance with Regulation 1, Rule 300 of the District. Failure to pay these fees will result in forfeiture of this Permit to Operate. Operation without a permit subjects the source to potential enforcement action by the District and the US EPA pursuant to section 502(a) of the Clean Air Act as amended in 1990[40 CFR 70.6(a)(7); Regulation 5, Rule 670].
- B. Inspection and Entry** - Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the District, CARB, EPA or an authorized representative to perform the following:
1. Enter upon the permittee's premises where a regulated facility or emissions-related activity is located or conducted, or where records must be kept under the conditions of this permit.
 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
 3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the conditions of this permit.
[40 CFR 70.6(c)(2); Regulation 5, Rule 610(e)]
- C. Facilities Operation**
1. Operation under this permit must be conducted in compliance with all data and specifications included in the application which attest to the operator's ability to comply with District Rules and Regulations[Regulation 1, Rule 240(d)].
 2. All nonexempt equipment of this permit shall at all times be maintained in good working order and be operated as efficiently as possible to assure compliance with all applicable emission limits[Regulation 1, Rule 240(d)].
 3. Operational Limit - This permit is valid for a maximum of 365 days per year at 24 hours per day[Regulation 1, Rule 240(d)].
- D. Compliance**
1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action(including monetary civil penalties); for permit termination, revocation and reissuance, or modification; or for denial of an application for reissuance of the permit[40 CFR 70.6(a)(6); Regulation 5, Rule 610(g)].
 2. The need to halt or reduce activity is not a defense. It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit[40 CFR 70.6(a)(6); Regulation 5, Rule 610(g)].
 3. A pending permit action or notification of anticipated noncompliance does not stay any permit condition[Regulation 5, Rule 610(g)(5)].

4. The permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by this permit[40 CFR 70.6(a)(6)].

5. The permittee shall provide to the District on an annual basis a completed "Compliance Certification" form which certifies the compliance status of the facility, and on a semi-annual basis a monitoring certification report which provides certification of the monthly monitoring reports. The compliance certification form and monitoring certification report must be signed by a responsible company official and contain a statement that the information contained in the report is true, accurate, and complete. A semi-annual compliance certification report shall be submitted to document the compliance schedule of any source out of compliance[40 CFR 70.6(c); Regulation 5, Rules 460 and 610(g)].

6. Emergency events which occur at the permittee's plant which affect compliance with the terms of this permit must be reported to the District in accordance with Regulation 1, Rule 540. Emergency events are normally outside influences over which the permittee has no control[Regulation 5, Rule 460].

E. Severability - If any term or condition of this permit shall 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[40 CFR 70.6(a)(5); Regulation 5, Rule 610(h)].

F. Recordkeeping and Reporting

1. The permittee shall retain records of all required monitoring data and support information including the date, place, time and results of any sampling or analysis, the operating conditions at the time of sampling for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and copies of all reports required by this permit[40 CFR 70.6(a)(3)(ii)(B); Regulation 5, Rule 455].

2. The permittee shall report to the District any deviations from these permit requirements, including those attributable to breakdown conditions, the probable cause of the deviations, and any corrective actions or preventive measures taken. Procedures of Regulation 1, Rule 540 shall be followed in the reporting of such deviations. A breakdown log shall be maintained for recordkeeping purposes[40 CFR 70.6(a)(3)(iii)(B); Regulation 5, Rule 460; Regulation 1, Rule 540].

3. The permittee shall report to the District calendar year plant operating information which includes the number of operating days for the boiler, the amount of steam produced and propane burned[Regulation 1, Rule 240(d)].

4. The permittee shall maintain records of any startup or shutdown, any periods of malfunction of the air pollution control equipment, and any periods during which the CEMS or COMS are inoperative[40 CFR 60.7(b)].

5. The permittee shall submit by February 28th of each year, a combined report to comply with the General Provisions sections D.5 and F.3[Regulation 1, Rule 240(d)].

G. Transfer of Ownership -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 District[Regulation 1, Rule 240(j)].

H. Reopening for Cause

1. This permit may be modified, revoked, reopened, reissued, or terminated for the following reasons:
 - a. Additional requirements under the federal Clean Air Act become applicable to the facility for which three or more years remain on the original term of the permit. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is to expire.
 - b. The District or EPA determines that the permit contains a material mistake made in establishing the emissions standards or limitations, or other requirements of the permit.
 - c. The District or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements. [40 CFR 70.7(f); Regulation 5, Rule 570]
2. The reopening of this permit for a change to be implemented for a specific permit unit will be allowed without the need to reopen the entire permit and all permit units. Should a general condition be changed, all the associated permit units affected would be reopened [Regulation 1, Rule 240(d)].
3. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [40 CFR 70.6(a)(6)].

I. Property Rights - This permit does not convey any property rights of any sort, or any exclusive privilege [40 CFR 70.6(a)(6)].

J. Permit Renewal and Expiration - This permit is effective on the date of issuance and will expire in five years and must be renewed every five years thereafter. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted. For renewal of a permit, the designated representative shall submit a complete District application no earlier than 18 months and no later than 6 months before the expiration date of the current permit [40 CFR 70.5(a); Regulation 5, Rule 405(b)].

K. Permit Modification - The permittee shall submit an application for a minor or significant permit modification in accordance with District Regulation 5 [40 CFR 70.5(a); Regulation 5, Rule 405].

L. Prohibitions - These limitations apply to all emissions sources at the permittee's facility unless more specific and limiting requirements are listed for a individual permitted emissions unit in this permit.

1. **Public Nuisance** - The 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 an natural tendency to cause injury or damage to business or property [H&S 41700].

2. **Visible Emissions** - The 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 Ringlemann 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 Ringlemann 2 or forty (40) percent opacity [Regulation 1, Rule 410(a)].

3. **Fugitive Dust Emissions** - The handling, transporting, or open storage of material in such a manner which allow unnecessary amounts of particulate matter to become airborne, shall not be permitted. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne [Regulation 1, Rule 430].

4. **Sulfur Oxide Emissions** - The permittee 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 [Regulation 1, Rule 440].
5. **Circumvention** - The permittee shall not construct, erect, modify, operate, or use any equipment which conceals an air contaminant emission, which would otherwise constitute a violation of the limitations of this permit, unless the operation or use of said equipment results in a significant reduction in the total emission of air contaminants [Regulation 1, Rule 400(b)].
6. **Regulation 2, Open Burning Procedures** - The permittee 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 except as provided in Rule 2-102, Exemptions [Regulation 2].
7. **Title VI, Stratospheric Ozone Protection** - The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, and 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
8. **National Emission Standard for Asbestos** - The permittee shall comply with the standards of 40 CFR Part 61 Subpart M which regulates demolition and renovation activities at the power plant as pertaining to asbestos materials.

This permit does not authorize the emission of air contaminants in excess of those allowed by the Health and Safety Code of the State of California or the Rules and Regulations of the North Coast Unified Air Quality Management District as stated in this permit. Any regulation or rule not cited in this permit which may be applicable to a particular emission unit will not be enforceable. This permit cannot be considered as permission to violate existing laws, ordinances, regulation or statutes of other governmental agencies. The violation of any of these terms and conditions shall be grounds for revocation of this permit, and shall be a violation of District Rules and Regulations.

**NORTH COAST UNIFIED
AIR QUALITY
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DATE:

6/30/2010

BY:

Richard L. Martin, Jr

Richard L. Martin, Jr
AIR POLLUTION CONTROL OFFICER



Permit Seal

permits/PL5PO

FIGURE I

CYCLONE TOP OPACITY
vs OUTLET PARTICULATE LOADING
(grains/cubic foot)



