South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

December 14, 2004

DOCKET
04-SPPE-1
DATE DEC 14 2004
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Mr. James W. Reede
Project Manager
California Energy Commission
1516 9th Street
Sacramento, CA 95814-5512

SUBJECT: City of Riverside Public Utilities Department, New Gas Turbine Power Plant, Facility ID No. 139796, Facility Location: Riverside Energy Resource Center, Jurupa and Peyton Avenues, Riverside, CA

Dear Mr. Reede:

The South Coast Air Quality Management District (AQMD) has received and reviewed permit applications for the subject gas turbine power plant project. The City of Riverside is proposing to install and operate a 100 megawatt (MW) natural gas fired power plant located at the Riverside Energy Resource Center, at Jurupa and Peyton Avenues, in the City of Riverside. This power plant will operate annually on an intermittent basis during periods of high electricity demand.

The AQMD has evaluated the subject permit applications and made a preliminary determination that the equipment will comply with all of the applicable requirements of our rules and regulations. We intend to issue the final permit at (1) the end of the 30-day public comment and review period and after all pertinent comments have been considered, (2) upon California Energy Commission certification of the Small Power Plant Exemption and (3) upon receiving EPA approval of the Title V permit.

Based on the emission potential, this project is subject to the public notice requirements of AQMD Rules 212 (Standards for Approving Permits) and 3006 (Title V), and has applied for an Initial Title V Permit. Therefore, this project is subject to a 45-day EPA review and a 30-day public notice period under AQMD Rules 212 and 3006.

Please find enclosed a public notice for the subject project issued in accordance with AQMD Rules 212 and 3006. The public notice provides for a 30-day comment period prior to making a final decision on issuance of the permit, and is also being published in a newspaper of general circulation in the vicinity of the nearest affected area. Additionally, the notice is being forwarded to other interested parties.

If you wish to provide comments or have any questions regarding this project, please contact Mr. Kenneth L. Coats at (909) 396-2527/ kcoats@aqmd.gov or Mr. John Yee at (909) 396-2531/ jyee@aqmd.gov.

Sincerely,

Pang Mueller
Senior Manager
Refinery, Energy & RECLAIM Administration

Enclosure
CM:JTY:klc

cc: Mr. Dan McCann, City of Riverside
Energy Team Files

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 · www.aqmd.gov

December 14, 2004

Mr. Dan McCann
Power Scheduling/Operations Manager
City of Riverside Public Utilities Department
2911 Adams Street
Riverside, CA 92504

Subject: Determination of SOx to PM10 Interpollutant Ratio for the proposed 100 MW Peaking Power Plant to be located at Riverside Energy Resource Center. Facility ID: 139796

Dear Mr. McCann:

Please refer to the following applications for Permits to Construct and Operate, in which the City of Riverside is proposing to install and operate two simple cycle 49.8 MW LM6000 PC Sprint natural gas turbines, associated air pollution control equipment and a 12,000 gallon aqueous ammonia storage tank.

Application Summary

A/N	Equipment Description
426694	LM6000 Sprint PC Natural Gas Turbine, 49.8 MW
426695	LM6000 Sprint PC Natural Gas Turbine, 49.8 MW
426696	SCR/CO Catalyst
426697	SCR/CO Catalyst
426698	Aqueous NH_3 Storage Tank
426693	Initial Title V Application

The City of Riverside has indicated that it will offset PM10 emissions to comply with CEQA. In providing these offsets, the City of Riverside is considering a SOx to PM10 conversion. Per email request from SCEC Air Quality Specialists dated August 4, 2004, the AQMD has determined that for NSR purposes, an interpollutant ratio of 2.0 to 1.0 for SOx to PM10 is appropriate. If you have any questions, please contact Mr. Kenneth L. Coats at (909) 396-2527.

Sincerely,

Pang Mueller
Senior Manager
Refinery, Energy & Reclaim Administration

CM:KLC

cc: Mr. Karl Lany, Vice President, SCEC
Mr. James Reede, California Energy Commission
SCAQMD Energy Team Files

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NOTICE OF INTENT TO ISSUE PERMIT
PURSUANT TO AQMD RULES 212 AND 3006

This notice is to inform you that the South Coast Air Quality Management District (AQMD) has received and reviewed permit applications for the City of Riverside and intends to issue a facility permit, 1) at the end of this 30-day public comment and review period and after all pertinent comments have been considered, 2) upon U.S. Environmental Protection Agency approval of the Title V permit, and 3) upon California Energy Commission certification of the Small Power Plant Exemption.

The AQMD is the air pollution control agency for the four county-region including Orange County and parts of Los Angeles, Riverside and San Bernardino counties. Anyone wishing to install or modify equipment that could control or be a source of air pollution within this region must first obtain a permit from the AQMD. Under certain circumstances, before a permit is granted, a public notice, such as this, is prepared by the AQMD and distributed.

The AQMD has evaluated the permit applications listed below for the following facility and determined that the project meets or will meet all applicable AQMD rules and regulations based upon the evaluation described below:

FACILITY: City of Riverside Public Utilities Department
Jurupa & Peyton Avenues
Riverside, CA 92504
Facility ID#: 139796

CONTACT: Mr. Dan McCann
Power Scheduling/Operations Manager
2911 Adams Street
Riverside, CA 92504

AQMD APPLICATION NUMBERS

426694	Gas Turbine No. 1
426695	Gas Turbine No. 2
424696	SCR/CO Catalyst No. 1
426697	SCR/CO Catalyst No. 2
426698	Aqueous Ammonia Storage Tank
426693	Initial Title V Application

PROJECT DESCRIPTION

The project consists of installing a power plant with the capability of generating a total of 100 megawatts of electrical power consisting of two (2) new, simple cycle gas turbines with associated air pollution control systems and an aqueous ammonia storage tank. Since the above equipment has the potential to emit pollutants in excess of the levels specified in AQMD Rule 212(g), a public notice is required.

PUBLICATION DATE: December 17, 2004

PROJECTED EMISSIONS

After the initial commissioning period, the total average daily emissions in any calendar month from operation of the proposed two turbines in conjunction with their air pollution control systems are not expected to exceed the following:

Pollutant	Maximum Monthly Emissions, lbs/month	Maximum Annual Emissions, lbs/year
NOx	12,145	20,349
CO	14,526	24,339
VOC	1,774	2,973
PM_{10}	4,659	7,806
SOx	424	710
NH3	3,317	5,558

Emissions from the proposed project contain pollutants that are considered toxic under AQMD Rule 1401-New Source Review of Toxic Air Contaminants. Therefore, a health risk assessment was performed for this project. The health risk assessment uses health protective assumptions in estimating actual risk to an individual person. Even assuming this health protective condition, the evaluation shows that the maximum individual cancer risk increase from the project is less than one-in-one-million. Also, acute and chronic indices, which measure toxicants' impact on target organs, are less than one. These levels of estimated risk are below the threshold limits of Rule 1401 (d) established for new or modified sources.

This facility is a new Federal Title V and Title IV (Acid Rain) facility. Pursuant to AQMD Title V Permits Rule 3006 – Public Participation, any person may request a proposed permit hearing on an application for a Title V significant permit revision by filing with the Executive Officer a complete Hearing Request Form (Form 500G) for a proposed hearing within 15 days of the date of publication of notice. On or before the date the request is filed, the person requesting a proposed permit hearing must also send by first class a copy of the request to the facility address and contact person listed above.

The proposed permit and other information are available for public review at the AQMD's headquarters in Diamond Bar, and at the Arlington Branch Library, 9556 Magnolia Avenue, Riverside, CA 92503. Additional information including the facility owner's compliance history submitted to the AQMD pursuant to Section 42336, or otherwise known to the AQMD, based on credible information, is available at the AQMD for public review by contacting Mr. Kenneth L. Coats, Engineering and Compliance, South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, CA 91765-4182, (909) 396-2527. Anyone wishing to comment on the air quality elements of these permits should submit the comments in writing to the AQMD, attention Ms. Pang Mueller. Comments must be received within 30 days of the distribution/publication of this notice. Questions regarding zoning decisions and the process by which the facility has been sited in this location should be directed to the local city or county planning department.

PUBLICATION DATE: December 17, 2004

ENGINEERING EVALUATION FOR A NEW 100 MW POWER PLANT

COMPANY NAME AND ADDRESS

City of Riverside Public Utilities Department
2911 Adams Street
Riverside, CA 92504
Contact: Mr. Dan McCann (Power Scheduling/Operations Manager) 951/351-6332
Facility ID: 139796

EQUIPMENT LOCATION

Jurupa and Peyton Avenues
Riverside, CA 92504

EQUIPMENT DESCRIPTION

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES, POWER GENERATION					
GAS TURBINE, UNIT NO. 1, NATURAL GAS, GENERAL ELECTRIC MODEL LM6000PC SPRINT, SIMPLE CYCLE, WITH STEAM OR WATER INJECTION, 490 MMBTU/HR, WITH A/N 426694 GENERATOR 49.8 MW	D1	C2	NOX: MAJOR SOURCE	**CO:** 6.0 ppmv Natural Gas (4) [Rule 1303(a)(1)-BACT]; **CO:** 2000 ppmv (5)[Rule 407]; **NOX:** 106 ppmv NATURAL GAS (8) [40CFR60 Subpart GG]; **NOX** 17.18 lb/mmscf NATURAL GAS (1)[Rule 2012] **NOX** 2.5 ppmv NATURAL GAS (4)[Rule 2005-BACT] **VOC:** 2.0 ppmv (4)[Rule 1303(a)(1)-BACT] **PM:** 0.01 GRAIN/SCF (5A) [Rule 475]; **PM:** 0.1 GRAIN/SCF (5)[RULE 409] **PM:** 11 LBS/HR (5B)[Rule 475]; **SOX:** 150 PPMV (8) [40CFR60 Subpart GG] **SO2:** (9) Acid Rain Provisions	A63.1, A63.2, A99.1, A99.2, A99.3, A195.1, A195.2, A327.1, C1.1, C1.2, D12.1, D29.1, D82.1, D82.2, E179.1 E193.1, I296.1, K40.1, K67.1

EQUIPMENT DESCRIPTION (continued)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES, POWER GENERATION					
SELECTIVE CATALYTIC REDUCTION UNIT NO. 1, CORMETECH, INC., VANADIUM-BASED CERAMIC HONEYCOMB WITH 1,227 CUBIC FEET OF TOTAL CATALYST VOLUME, LENGTH: 2.6 FT; WIDTH: 8.8 FT; HEIGHT: 6.5 FT, WITH A/N: 426696	C2	C3		**NH3:** 5.0 ppmv (4) [Rule 1303(a)(1)-BACT]	A195.3 D12.2 D12.3 D12.4 D29.2 E73.1 E179.2 E193.1
CO OXIDATION CATALYST, ENGLEHARD, INC, PLATINUM-ON-ALUMINA, SINGLE LAYER, WITH A/N: 426696	C3	D1 C2			
STACK NO. 1, DIAMETER: 13 FT, HEIGHT: 80 FT A/N: 426694	S4	C2			
Process 1: INTERNAL COMBUSTION					
System 2: GAS TURBINES, POWER GENERATION					
GAS TURBINE, UNIT NO. 2, NATURAL GAS, GENERAL ELECTRIC MODEL LM6000PC SPRINT, SIMPLE CYCLE, WITH STEAM OR WATER INJECTION, 490 MMBTU/HR, WITH A/N 426965 GENERATOR, 49.8 MW	D5	C6	NOX: MAJOR SOURCE	**CO:** 6.0 ppmv Natural Gas (4) [Rule 1303(a)(1)-BACT]; **CO:** 2000 ppmv (5) [Rule 407]; **NOX:** 106 ppmv (8) [40CFR60 Subpart GG]; **NOX** 2.5 ppmv NATURAL GAS (4)[Rule 2005-BACT] **NOX** 17.18 lb/mmscf NATURAL GAS (1)[Rule 2012] **VOC:** 2.0 ppmv NATURAL GAS (4) [Rule 1303(a)(1)-BACT] **PM:** 0.01 GRAIN/SCF (5A) [Rule 475]; **PM:** 0.1 GRAIN/SCF (5)[RULE 409] **PM:** 11 LBS/HR (5B)[Rule 475]; **SOX:** 150 PPMV (8) [40CFR60 Subpart GG]	A63.1, A63.2, A99.1, A99.2, A99.3, A195.1, A195.2, A327.1, C1.1, C1.2, D12.1, D29.1, D82.1, D82.2, E179.1 E193.1, I296.1, K40.1, K67.1

EQUIPMENT DESCRIPTION (continued)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 2: GAS TURBINES, POWER GENERATION					
SELECTIVE CATALYTIC REDUCTION UNIT NO. 2, CORMETECH, INC., VANADIUM-BASED CERAMIC HONEYCOMB WITH 1,227 CUBIC FEET OF TOTAL CATALYST VOLUME, LENGTH: 2.6 FT; WIDTH: 8.8 FT; HEIGHT: 6.5 FT, WITH A/N: 426697	C6	C7		**NH3:** 5.0 ppmv (4) [Rule 1303(a)(1)-BACT]	A195.3 D12.2 D12.3 D12.4 D29.2, E73.1 E179.2 E193.1
CO OXIDATION CATALYST, ENGLEHARD, INC, PLATINUM-ON-ALUMINA, SINGLE LAYER, 82 CUBIC FEET, WITH A/N: 426697	C7	D2 C6			
STACK NO. 2, DIAMETER: 13 FT, HEIGHT: 80 FT A/N: 426695	S7	C6			
Process 2: AMMONIA STORAGE					
STORAGE TANK, FIXED ROOF, 19% AQUEOUS AMMONIA SOLUTION, 12,000 GALLON, WITH VAPOR RETURN LINE A/N: 426698	D5				C157.1 E144.1 E193.1

Fee Summary

The City of Riverside has submitted a check in the amount of $9,383.96 to cover the processing of five applications for Permit to Construct and a second check for $922.88 to cover one Title V initial application. These six applications are for the proposed 100 MW power plant which will be constructed at the Energy Resource Center in the City of Riverside. Processing fees for identical equipment each receive a 50% discount as shown in the table below. (The Initial Title V Application fee, submitted on March 9, 2004, was submitted to the AQMD separately from the main application package). The total processing fee for this series of applications is $10,306.84.

A/N	Submittal Date	Deemed Complete	Equipment	Schedule	Processing Fee
426694	March 3, 2004	March 19, 2004	Gas Turbine, 49.8 MW	D	$3,081.85
426695	March 3, 2004	March 19, 2004	Gas Turbine, 49.8 MW	D	$3,081.85 @ 50%
426696	March 3, 2004	March 19, 2004	SCR/CO Catalyst	C	$2,232.96
426697	March 3, 2004	March 19, 2004	SCR/CO Catalyst	C	$2,232.96 @ 50%
426698	March 3, 2004	March 19, 2004	Aqueous NH_3 Storage Tank	B	$1,411.74
426693	March 9, 2004	March 19, 2004	Initial Title V Application	N/A	$922.88
				Total	**$10,306.84**

FACILITY DESCRIPTION

The Riverside Energy Resource Center is a parcel of recently graded but otherwise undeveloped land with no existing sources of air pollution. The parcel is located at the northwest corner of the intersection of Jurupa Avenue and Peyton Avenue at the western edge of the City of Riverside. The City's wastewater treatment plant, a separate facility, is presently located to the northwest of the proposed facility. The nearest residential community is located approximately 1,000 feet north and 2,500 feet east of the site of the proposed power plant across the Santa Ana River. There are no other structures located on this parcel.

COMPLIANCE RECORD

The City of Riverside Public Utility Department (ID No. 139796) is a new facility, and as of March 28, 2004, construction on the proposed power plant has not yet begun, and no additional existing sources are presently operating under the above facility ID. As a confirmation, (and as expected) the AQMD's Compliance Tracking System database indicates no outstanding NOVs or NCs against this facility.

PROJECT OVERVIEW

The City of Riverside Public Utilities Department is submitting this application package for Permits to Construct two simple cycle LM6000PC Sprint gas turbines and associated air pollution control systems, an ammonia storage tank, and a Title V application. Each turbine will be rated at 49.8 MW and each turbine will be operated as a peaking unit for about 1,330 hours/year. The proposed annual operating schedule for each turbine will be as follows:

Proposed Operating Schedule

Normal Operations	910 hours per year
Start-up	200 hours per year
Shutdown	200 hours per year
Maintenance	10-20 hours per year

Although the table above indicates a window of 10-20 hours for maintenance and testing per year per turbine, the facility has requested a 20 hour period during the year to allow for maintenance and testing of each turbine. In a meeting with the applicant on March 4, 2004, it was explained that under normal circumstances, equipment such as the LM6000 gas turbine is usually afforded a maximum of up to 10 hours per year for maintenance and testing. In an email to the AQMD dated September 21, 2004 consultant indicated that the City of Riverside has addressed this issue and has agreed that 10 hours per year per turbine is acceptable. Therefore, each turbine may be conditioned to a maximum of 10 hours per year for maintenance testing under conditions A99.1 and A99.2, once the operator supplies the AQMD with a distinct definition of a "maintenance period".

Definition of a Peaking Unit in Rule 2012

A peaking unit is defined as a turbine which is used intermittently to produce energy on a demand basis and does not operate more than 1,300 hours per year. This definition is found in Rule 2012-Requirements for Monitoring, Reporting and Recordkeeping for Oxides of Nitrogen (NOx) Emissions, Attachment A-F as amended December 5, 2003. In Riverside's case, each individual turbine will have the potential to operate for about 1,330 hours/year, which is slightly more than that allowed for a traditional peaking unit. Therefore, these turbines will not be classified as peaking units under Regulation XX and will be classified as NOx Major Sources under Rule 2012. The City of Riverside will not use a

black-start engine. Black-start power will be provided by the nearby City of Riverside wastewater treatment facility. Both turbines will be fired with pipeline quality natural gas and will be equipped with water injection, selective catalytic reduction (SCR) and a CO catalyst system to control NOx and CO emissions, respectively. Cooling water for each turbine will consist of either potable water, reclaimed water from the City of Riverside wastewater treatment facility, or a combination of the two sources. The water will be de-mineralized prior to its injection into the turbines. The facility will contain chillers and evaporative coolers to help cool the inlet water during the summer months. Aqueous ammonia (NH_3) will be used as a reactant in the SCR system.

PROCESS DESCRIPTION

Gas Turbines

The LM6000 gas turbine is essentially an aeroderivative turbine, meaning that it is a dual-rotor, "direct drive" gas turbine, derived from the CF6-80C2, high-bypass, turbofan aircraft engine. The LM6000 takes advantage of its parent aircraft engine's low-pressure rotor operating speed of approximately 3,600 rpm. The low-pressure rotor is the driven-equipment driver, providing for direct coupling of the gas turbine low-pressure system to the load (the electrical generator). The LM6000 gas turbine consists of a five-stage low-pressure compressor; a 14-stage high-pressure compressor, which includes six variable-geometry stages; an annular combustor with 30 individually replaceable fuel nozzles; a two-stage, air-cooled high-pressure turbine; and a five-stage low-pressure turbine, and the overall pressure ratio is approximately 29 to 1. The LM6000 gas turbine has two concentric rotor shafts: the low pressure (LP) compressor and turbine form the LP rotor, and the high pressure (HP) compressor and turbine from the HP rotor. The LM6000 is equipped with an evaporative cooling system that will be used for cooling the combustion air, and each unit will use the LP turbine to power the output shaft with a direct coupling to the 3600-rpm generator for 60 Hz power generation. The generator is a synchronous, two-pole cylindrical rotor generator with forced air-cooling. For purposes of performance, and to assist prospective buyers, the ISO has developed a set of conditions for rating and comparing gas turbine engines. ISO conditions are as follows:

ISO Conditions

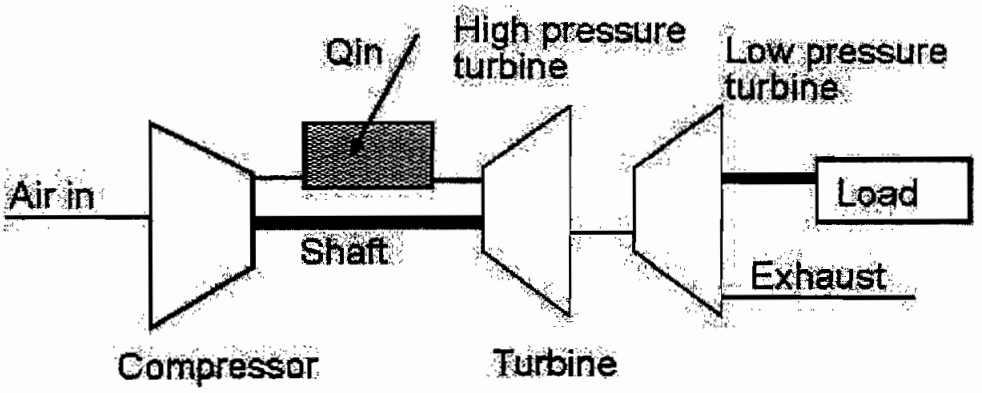
Parameter	
Ambient Temperature	15°C (59°F)
Barometric Pressure	14.70 psia (29.92 inches of Hg)
Relative Humidity	60%
Elevation	Sea level

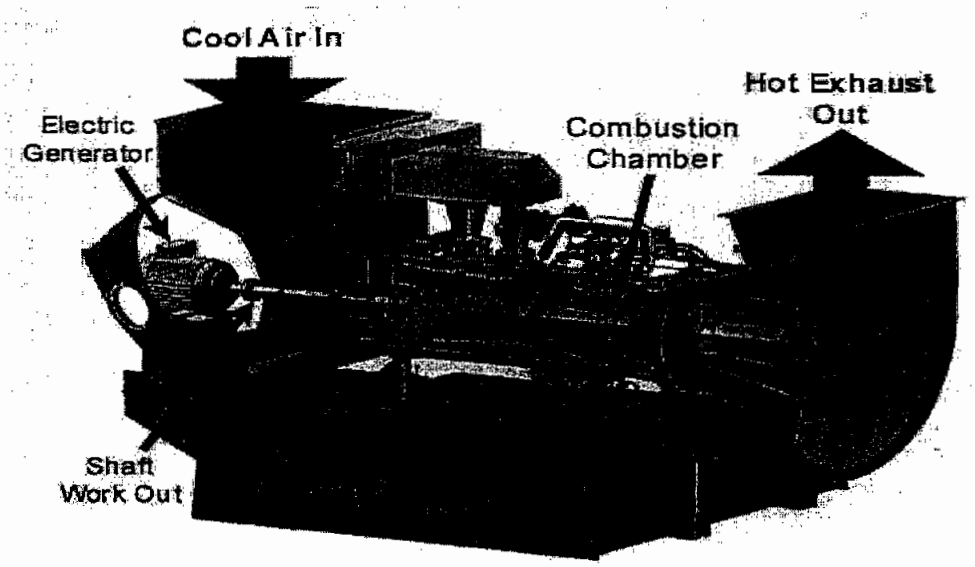
General Discussion of the Brayton Power Cycle

There are two power cycles that are generally used in the generation of electricity with turbines; the Rankine cycle (steam turbines), and the Brayton cycle (gas turbines). The Rankine cycle is used in most base load power plants which involve a combined cycle configuration as opposed to a simple cycle configuration. The Brayton cycle is the power cycle used for gas turbines, often used in peaking applications, as is the case with the City of Riverside's proposed 100 MW power plant. The Brayton cycle is an open cycle where ambient air is compressed to high temperature and pressure before it is fed to the combustion chamber. In the combustion chamber, the air-fuel mixture is ignited, dramatically increasing the temperature of the mixture. These hot gases are then expanded in a turbine, which can be coupled to an electric generator, as is the case with the City of Riverside. The LM6000 gas turbine

operating on the Brayton Cycle configured with its dual concentric rotor shafts is shown in the generalized diagrams below[1].

Open Brayton Cycle with a Dual Rotor Shaft Arrangement





[1] Note that the specific diagram configuration for the City of Riverside gas turbines may vary slightly due to the use of the SPRINT Technology

The above discussion focuses on the basics of the GE LM6000 gas turbine. However, the City of Riverside is proposing to install a modified version of the LM6000. Both gas turbines being installed at the Riverside Energy Resource Center are General Electric's LM6000PC Sprint model, each rated at a nominal 49.8 MW, for a combined plant power output of 100 MW. The LM6000PC Sprint model is a more efficient engine due primarily to the incorporation of SPRINT technology. A discussion of the principles of SPRINT technology is provided below.

Discussion of SPRINT Technology

Unlike most gas turbines, the LM6000 is primarily controlled by the compressor discharge temperature in lieu of the turbine inlet temperature. Some of the compressor discharge air is then used to cool high-pressure turbine components. SPRINT, which stands for "**spr**ay **int**ercooled" reduces compressor discharge temperature thereby allowing advancement of the throttle to significantly enhance power by 9 percent at ISO conditions and greater than 20 percent at 90°F (32 °C) ambient temperatures. The LM6000 Sprint system is composed of atomized water injection at both low-pressure compressor (LPC) and high-pressure compressor (HPC) inlet plenums. This is accomplished by using a high-pressure compressor, eighth-stage bleed air to feed two air manifolds, water-injection manifolds and sets of spray nozzles, where the water droplets are sufficiently atomized before injection at both LPC and HPC inlet plenums. Benefits of LM6000 Sprint generator-set include a generation capacity of up to 50 MW, development of full power within 10 minutes of start-up, multiple uses (peaking power, base loading, cycling), dual fuel capacity (distillate or natural gas), easy on-site maintenance, higher efficiency (~40%) than their heavy duty Frame counterparts (~32-34%). In summary, SPRINT technology uses spray intercooling to boost the power output of the basic LM6000 gas turbine by significantly increasing the mass airflow through cooling of the air during the compression process. Typical results range from approximately 9% more power output at ISO conditions to approximately 20% more power output on days when the ambient temperature is around 90°F. Therefore, as ambient temperature rises, the benefits of SPRINT technology become more significant.

LM6000PC SPRINT Specifications

Specification	
Manufacturer	General Electric
Fuel Type	CA PUC quality natural gas
Average Fuel Heat Content	1,050 Btu/scf
Maximum Fuel Consumption	0.467 MMCF/hr
Maximum Fuel Consumption	490 MMBTU/hr, HHV
Maximum Exhaust Flow	575,520 acfm
Heat Rate	8,973 Btu/KW-hour, LHV
Water Injection Rate	27,851 lb/hr
Exhaust Temperature	830°F @ full load with quench air injection
Power Output @ 72°F, with chiller	49.8 MW
Uncontrolled NOx Emissions w/ H_2O Injection	25 ppmvd @ 15% O_2

Water will be injected into the combustors to control the NOx emissions to 25 ppmvd at 15% oxygen. The water used for injection will be cooled to approximately 45°F in order to improve power performance and overall efficiency.

Air Pollution Control (APC) System

Both gas turbines will be configured with a dedicated APC system to control the CO, NOx, and VOC emissions. To a lesser degree, the APC systems will also reduce emissions of formaldehyde (H_2CO) and acetaldehyde (CH_3CHO) from the gas turbines. Each individual APC system will be configured with the following equipment: (1) aqueous ammonia storage and transfer equipment, (2) heated ammonia vaporization skid, (3) ammonia distribution header, (4) CO/oxidation catalyst, (5) SCR catalyst, and (6) 80' high x 13'-0" ID exhaust stack. Items (1) though (6) are described in detail below:

Aqueous Ammonia Storage and Transfer Equipment

The ammonia will be transported to the site in aqueous form which will have a maximum concentration of 19% by weight. The ammonia will be stored in a specially designated fixed roof horizontal tank with a capacity of 12,000 US gallons, a maximum design pressure of 25 psig, and it will be constructed to ASME Section VIII specifications. A vapor return line will be used during receiving operations to control filling losses.

Heated Ammonia Vaporization Skid

The ammonia vaporization skids will be used to vaporize the 19% aqueous ammonia so that it can be transferred to the ammonia injection grids. The ammonia vaporization equipment will be shop-assembled and skid mounted for easy field installation. During cold start-up of the turbines, it will take some time (~10 minutes) before the ammonia injection chamber is hot enough to heat the ammonia for injection. Therefore, each ammonia injection chamber is equipped with an electric pre-heater unit which can be initiated prior to the cold start-ups to ensure that the ammonia is adequately heated prior to injection. The ammonia vaporization skids are typically configured with two 15 hp dilution air fans (one operating and one spare) and two 110 KW pre-heater elements (one operating and one spare) housed in a common heater box. In addition, the aqueous ammonia is typically atomized in the ammonia injection chamber and is then fed to the ammonia distribution header.

Ammonia Distribution Header

A carbon steel ammonia distribution header will be used to receive the hot ammonia/air mixture from the ammonia vaporization skid and deliver it evenly to the ammonia injection grid piping. There will be a total of 8 headers with 7 branches per header. Typically, the injection grid supply piping is equipped with manual butterfly valves and flow instrumentation used for adequate balancing of ammonia flow.

CO/Oxidation Catalyst

A CO catalyst will be used to control CO emissions and, to a lesser extent, the VOC emissions. The oxidation catalyst will also control the formaldehyde and acetaldehyde emissions. The catalyst is located within a structural catalyst frame integral to the housing, with room for additional layers of catalyst. The temperature of the flue gas passing through the catalyst may vary from approximately 788°F to 830°F, depending on ambient temperature and gas turbine operating conditions.

The maximum pressure drop across the catalyst will be approximately 1.7 inches H_2O column. The system is equipped with an alarm which will sound when the catalyst exceeds its maximum allowable operating temperature. The following table is a summary the CO/oxidation catalyst specifications.

CO/Oxidation Catalyst Specifications

Specification	
Manufacturer	Englehard Corporation
Catalyst Type	Stainless steel monolith with platinum-on-alumina washcoat
Space Velocity	205,000 hr^{-1}
Max Outlet CO	6.0 ppmvd (1-hour average @ 15% O_2)
Max Outlet VOC	2.0 ppmvd (1-hour average @ 15% O_2)
Minimum Operating Temperature	500°F
Maximum Operating Temperature	1,250°F

SCR Catalyst

The SCR catalyst is used to control the NOx emissions. The catalyst will be located within a structural catalyst frame and downstream from the CO/oxidation catalyst. The housing will be configured with room for additional layers of catalyst to meet present or future emission reduction requirements. Cormetech, Inc. will provide the SCR catalyst and the temperature of the flue gas passing through the catalyst may vary from 485°F to 1112°F, depending on ambient temperature and gas turbine operating conditions. The maximum pressure drop across the catalyst will be approximately 4.6 inches H_2O column. The system is equipped with an alarm which will sound when the catalyst exceeds its maximum allowable operating temperature. A tempering air system will be installed, and the purpose of this equipment is to ensure that the flue gas temperature does not exceed the upper operating range of the SCR catalyst. The tempering air system will consist of a 65 HP fan that can provide 18,200acfm of quench air into the gas turbine exhaust stream.

SCR Data Summary

Specification	
Catalyst Manufacturer	Cormetech, Incorporated
SCR Catalyst Dimensions	31.75" L. x 106.125"W. x 78.5" H
Minimum Catalyst Operating Temperature	485°F
Maximum Catalyst Operating Temperature	1112°F
Space Velocity	15,350 hr^{-1}
Ammonia Injection Rate	76 lb/hr (@ design operating conditions)
Maximum Ammonia Slip	5.0 ppmvd 1-hour average at 15% O_2
Outlet NOx Emissions	2.5 ppmvd 1-hour average at 15% O_2

PERFORMANCE WARRANTY FOR EACH APC SYSTEM

Performance warranties for both CO/oxidation and SCR catalysts have been submitted along with the application package and any pertinent operating conditions for which the warranties are valid are also included. The performance warranties are included in the engineering file. According to the performance warranties, the CO/oxidation catalyst will be able to achieve approximately 95% CO reduction from inlet levels of CO[2] and the SCR catalyst will be able to achieve approximately 90% reduction efficiency from inlet levels of NOx. The maximum ammonia slip is warranted to not exceed 5.0 ppmvd @ 15% O_2. The table below shows the warranted emissions for NOx, CO, VOC as well as a mass emission warranty for PM_{10} for each APC system.

[2] Although the warranty does not explicitly state an expected conversion efficiency for VOC, it is expected that a lesser, but yet significant reduction efficiency for VOC will result such that VOC emissions can be warranted to 2.0 ppmvd@ 15% O_2.

Warranted Emissions For Each Turbine/APC System

Pollutant	Load Conditions	Warranted Emissions
Outlet NOx emissions	50% to 100%	2.5 ppmvd @ 15% O_2, 1-hour average
Outlet CO emissions	50% to 100%	6.0 ppmvd @ 15% O_2, 1-hour average
Outlet VOC emissions	50% to 100%	2.0 ppmvd @ 15% O_2, 1-hour average
Ammonia Slip	50% to 100%	5.0 ppmvd @ 15% O_2, 1-hour average
Outlet PM emissions	50% to 100%	3 lb/hr[3]

[3]Although the warranty is for 3lb/hr (which includes the SO_2 to SO_3 conversion), total PM_{10} emissons will be based on 0.0066 lb/MMBTU since more fuel will be burned during the worst case operating scenario, which typically is during the winter

CRITERIA POLLUTANT EMISSIONS

The emissions are based on the following formula and assumptions:

$$EF(lb/MMBTU) = ppmvd \times MW \times \left(\frac{1}{SMV}\right)\left(\frac{20.9}{5.9}\right) \times Fd$$

where,

ppmvd = Uncontrolled (or controlled) concentration at catalyst outlet @ 15% O_2
MW = molecular weight, lb/lb-mol
SMV = Specific molar volume at 68°F = 385.3 dscf/lb-mol
F_d = dry oxygen f-factor for natural gas at 68°F = 8,710 dscf/MMBTU

Assumptions:

1. Emissions are based on maximum annual fuel use
2. PM_{10} emissions are based on the AP42 emission factor of 0.0066 lb/MMBTU = 6.93 lb/mmcf
3. SOx emissions are based on the AP42 emission factor of 0.6 lb/MMSCF

The applicant has stated that the facility will operate with a fuel equivalent of 1,330 hours/year at maximum rating. The 1,330 hours/year includes commissioning, start-up, shutdown, and maintenance hours in addition to normal hours of operation. However, the annual emissions for NSR purposes will be based on maximum fuel use per year rather than hours of operation. This will account for the extra fuel burned during worst case operations, expected during the winter months.

RIVERSIDE ENERGY RESOURCE CENTER ANNUAL EMISSIONS (Two Turbines)

	Maximum Annual, lbs/year				
Turbines	NOx	CO	VOC	SO2	PM10
Normal Operations	7,520.95	10,987.13	2,092.79	480.41	5,390.21
Start up	6,588.00	5,280.00	408.00	112.00	1,096.00
Shutdown	2,640.00	4,472.00	408.00	112.00	1,200.00
Maintenance	3,600.00	3,600.00	80.00	5.60	120.00
Total	**20,348.95**	**24,339.13**	**2,972.79**	**710.01**	**7,806.21**

Normal Operations

Several factors, notably the modes of operation and ambient meteorological conditions will affect the emissions from the gas turbines. During normal operations, criteria pollutants are assumed to be controlled to BACT levels. The normal operating scenario will occur when the turbines are operating at full load, a maximum fuel consumption rate of 0.467 MMSCF/hr, a water injection rate of 27,851 lb/hr, and a maximum stack exhaust flow of 575,520 acfm (which includes 18,200 acfm of quench air injection). It is expected that each turbine will operate for approximately 1,330 hours/year. During normal operations, both units are assumed to operate at rated capacity with SCR and CO oxidation catalysts in full operation. During this period, the NOx and CO emissions will be controlled to 2.5 ppmvd and 6 ppmvd respectively. The table below provides a summary of the emissions for a single turbine during normal operation.

Mass Emission Rates (Single Turbine, Normal Operation)

Pollutant	Maximum Uncontrolled		Maximum Controlled		Annual Controlled
	lb/hr	lb/day	lb/hr	lb/day	lb/year
CO	40.20	643.20	6.03	96.48	5,493.57
NOx	41.30	660.80	4.13	66.08	3,760.48
PM_{10}	2.96	47.36	2.96	47.36	2,695.15
VOC	1.15	18.40	1.15	18.40	1,046.40
SOx	0.26	4.16	0.26	4.16	240.20
NH_3	3.05	48.80	3.05	48.80	2,779.48

Start-up and Shutdown Operations

Start-ups begin with each turbine's initial firing and continue until each unit complies with the permitted emission concentration limits. During start-up operations, the turbines are assumed to operate at slightly elevated NOx and CO average concentration rates due to the phased effectiveness of SCR and CO oxidation. The estimated potential emissions from each turbine resulting from start-up are shown in the following table. Hourly emissions reflect a ten minute process during which fuel consumption and power output rise to 100% of rated capacity. NOx emissions are at 25 ppmvd @ 15% O_2 through the first five minutes of operations. During the sixth minute of operation, sync idle load is achieved and NOx concentrations begin to climb to approximately 65 ppmvd @ 15% O_2 at approximately the seventh minute of operation. During the seventh minute of operation, water injection is initiated to meet a NOx concentration of 25 ppmvd @ 15% O_2. Full load is achieved at the tenth minute. Overall NOx, emissions are estimated to be 2.5 pounds during the tenth minute. CO emissions start out at approximately 180 ppmv @ 15% O_2, during the first minute of operation, then decline rapidly during the sixth minute of operation. By the seventh minute, CO concentrations are approximately 20 ppmv @ 15% O_2, and remain at that level into normal operations. The SCR system will be fully operational and effective during and after the tenth minute of start-up provided that the heated vaporization skid is initiated in advance of the turbine start-up. However, for purposes of this application, the applicant's emission calculations were done assuming that the turbine start-up will occur at the same time as the initiation of the vaporization skid, and therefore, an additional 30 minute period will be required before the SCR and CO catalysts can become fully effective. Forty minutes will therefore be allocated for start-up. Three start-up events per

turbine per day, and as many as 200 start-ups per year are expected. A summary of the start-up emissions are shown in the table below, for a single turbine:

Mass Emission Rates (Single Turbine, Start-Up Operations)

Pollutant	Maximum Uncontrolled		Maximum Controlled		Annual Controlled
	lb/hr	lb/day	lb/hr	lb/day	lb/year
CO	45.74	183.00	13.20	52.80	2,640.00
NOx	40.06	160.20	16.47	65.90	3,294.00
PM_{10}	2.74	11.00	2.74	11.00	548.00
VOC	1.68	6.70	1.02	4.10	204.00
SOx	0.28	1.12	0.28	1.12	56.00

Shutdowns begin with the initiation of the turbine shutdown sequence and end with the cessation of turbine firing. A shutdown will not exceed eight minutes. Upon initiation of the shutdown process, ammonia injection will be discontinued. Water injection will be discontinued approximately seven minutes into the shutdown process. NOx and CO emissions during the eight minute period are estimated to be 2.7 pounds and 5.21 pounds, respectively. Normal operating emission rates are assumed to occur during the preceding 52 minutes of the shutdown hour. Daily emissions reflect a maximum of four shutdown events per turbine per day. Annual emissions reflect a maximum of 200 shutdown events per turbine per year. A summary of the shutdown emissions are shown in the table below, for a *single* turbine:

Mass Emission Rates (Single Turbine, Shutdown Operations)

Pollutant	Maximum Uncontrolled		Maximum Controlled		Annual Controlled
	lb/hr	lb/day	lb/hr	lb/day	lb/year
CO	45.74	183.00	11.18	44.70	2,236.00
NOx	40.06	160.20	6.60	26.40	1,320.00
PM_{10}	3.00	12.00	3.00	12.00	600.00
VOC	1.68	6.70	1.02	4.10	204.00
SOx	0.28	1.12	0.28	1.12	56.00

Commissioning Period

The following table is a summary of the anticipated hourly, daily, and annual emissions during commissioning operations. During turbine commissioning, each unit will be commissioned independently and each will operate for approximately 200 hours total at 24 hours per day, without the use of the SCR units. Water injection will remain in full effect. Fuel consumption is assumed to be at 100 percent of rated capacity. During this period, the NOx, CO and VOC emissions will be higher than during normal operation because the SCR and CO catalysts will not be fully operational and the turbine combustors may not be optimally tuned. Therefore, NOx and CO concentrations are assumed to be 25 ppmv and 40 ppmv, respectively.

Mass Emission Rates (Single Turbine, Commissioning Period)

Pollutant	lb/hr	lb/day	lb/year
ROG	1.88	45.1	380.00
SOx	1.62	38.9	320.00
CO	45.93	1,102.3	9,180.00
PM10	3.00	72.0	600.00
NOx	44.93	1,078.3	8,986.00

AIR DISPERSION MODELING METHODOLOGY AND RESULTS

The applicant has conducted air dispersion modeling using the ISCST3 air dispersion model to provide downwind emission concentration estimates from both turbines. The ISCST3 air dispersion model is a steady-state Gaussian plume model capable of evaluating multiple sources, different types of sources, and complex terrain features. The air dispersion model was run at a single normalized emission rate of 1.0 gram/sec. The resulting model output of $\mu g/m^3$ at 1.0 gram/sec was multiplied by the individual pollutant emission rate (grams/sec) to obtain the final adjusted ambient downwind pollutant ground-level concentrations ($\mu g/m^3$) and then subsequently used to conduct the air quality modeling and the health risk assessment. The applicant's analysis evaluated the maximum concentrations calculated by the model for each of the relevant averaging time periods (1-hour, 8-hour, 24-hour, Annual and Annual Geometric Mean). These concentrations were then compared to the "Significant Change in Air Quality Concentration" standards in Rule 1303, Table A-2, with the exception of NOx. In the case of NOx, a detailed air quality impact analysis was performed in which the downwind concentrations calculated by the model were converted into ppm values and added to the measured ambient background NO_2 concentrations and then compared to the most stringent standard. The applicant's results are based on the worst-case operating scenarios.

The first scenario included (a) 1-hour NOx and CO emission rates based on start-up emissions which is the most conservative, (b) annual NOx emissions based on start-up, shutdown, maintenance, and normal operation, and (3) 8-hour CO emission estimates reflect four hours of start-up, shutdown, and four hours of operation.

The second scenario evaluated was the commissioning operation year. This also included the following: (1) 1-hour NOx and CO emission rates were based on uncontrolled operations, which is the most conservative estimate, and (2) Annual NOx emission estimates are an average that takes into account typical commissioning, start-up, shutdown, and normal operation during the course of an operation year, and (3) 8-hour CO emission estimates are an average that takes into account typical start-up, shutdown, and normal operation during the course of an operation day. Note also that total SOx emissions were used to represent the sulfates. The table below shows the applicable standards for the subject pollutants, and the results from the modeling analysis.

Summary of Air Quality Impact Analysis
Normal Year Operations

Pollutant	Averaging Time	Project Impacts	Ambient Background	Project + Ambient	Ambient Standards	Comply (Y/N)
NOx	1-hour (ppm)	0.025	0.15	0.175	0.25	Yes
NOx	Annual (ppm)	0.0001	0.03	0.03	0.0534	Yes
CO	1-hour (ppm)	0.032	8.0	8.032	20.0	Yes
CO	8-hour (ppm)	0.021	5.8	5.802	9.0	Yes
PM_{10}	24-hour ($\mu g/m^3$)	0.51	163.0	163.5	50.0	Yes
PM_{10}	Annual ($\mu g/m^3$)	0.05	72.30	72.35	30.0	Yes
Sulfate	24-hour ($\mu g/m^3$)	0.93	11.00	11.93	25	Yes

The table below provides a summary of the air quality impact results for the commissioning year. Uncontrolled emission rates of 25 ppmv NOx and 40 ppmv CO were assumed for both the 1-hour and 8-hour runs. Annual impact analyses reflect the total emissions from commissioning, start-up, shutdown, normal operations, and maintenance.

Summary of Air Quality Impact Analysis
Commissioning Year Operations

Pollutant	Averaging Time	Project Impacts	Ambient Background	Project + Ambient	Ambient Standards	Comply (Y/N)
NOx	1-hour (ppm)	0.067	0.15	0.217	0.25	Yes
NOx	Annual (ppm)	0.0001	0.03	0.03	0.0534	Yes
CO	1-hour (ppm)	0.113	8.0	8.113	20.0	Yes
CO	8-hour (ppm)	0.079	5.8	5.879	9.0	Yes
PM_{10}	24-hour ($\mu g/m^3$)	0.52	163.0	163.5	50.0	Yes
PM_{10}	Annual ($\mu g/m^3$)	0.05	72.30	72.35	30.0	Yes
Sulfate	24-hour ($\mu g/m^3$)	0.93	11.00	11.93	25	Yes

The results of the air quality impact analysis show that during commissioning, start-up, shutdown, maintenance and normal operations, the simultaneous operation of both turbines will not cause a violation, or make significantly worse, an existing violation of any state or national ambient air quality standard at any receptor location within the South Coast Air Basin. The applicant's modeling analysis was submitted to and reviewed by AQMD modeling staff and no significant deficiencies in methodology were noted. (see correspondence from Zorik Pirveyzian to Pang Mueller dated July 8, 2004). Therefore, compliance with Rule 1303(b)(1) is expected.

RULE 1303(a)-BACT

This rule states that the Executive Officer shall deny the Permit to Construct for any new source which results in an emission increase of any non-attainment air contaminant, any ozone depleting compound, or ammonia unless the applicant can demonstrate that BACT is employed for the new source. This project is a new source with a potential for an increase in emissions and therefore, BACT is required. The LM6000PC Sprint gas turbine proposed for construction at RERC will be operated on a simple cycle (no steam turbine or HRSG). As of the date of this evaluation, BACT for simple cycle gas turbines is shown in the table below:

BACT Requirements for Simple Cycle Gas Turbines

NOx	CO	VOC	PM_{10}/SOx	NH_3
3.5 ppmvd, @ 15% O_2, 1-hour rolling average	6.0 ppmvd, @ 15% O_2, 1-hour rolling average	2.0 ppmvd, @ 15% O_2, 1-hour rolling average	Pipeline quality natural gas w/ S content ≤ 1 grain/100 scf	5.0 ppmvd @ 15% O_2, 1-hour rolling average

This information was based on a search of the BACT Clearinghouse database and the latest information available is that for a permit issued to El Colton in January 2003. This unit is an LM6000 Sprint PC model operating on a simple cycle such as the ones being proposed for the City of Riverside. The unit was permitted at the above emission levels and has been in operation continuously for over one year. Therefore, emission levels in the above table are now BACT for a simple cycle gas turbine, and the City of Riverside is therefore required to meet these emission levels.

The applicant has provided a performance warranty dated January 6, 2004 which indicates that the above BACT requirements can be met. The warranty is included in the engineering file. The applicant is proposing the following BACT levels for this project.

Proposed BACT

NOx	CO	VOC	PM_{10}/SOx	NH_3
2.5 ppmvd, @ 15% O_2, 1-hour rolling average	6.0 ppmvd, @ 15% O_2, 1-hour rolling average	2.0 ppmvd, @ 15% O_2, 1-hour rolling average	PUC quality natural gas w/ S content ≤ 1 grain/100 scf	5.0 ppmvd @ 15% O_2, 1-hour rolling average

A NOx CEMS will be used to verify compliance with NOx BACT limit and a CO CEMS will be used to verify compliance with the CO BACT limit. The proposed control levels meet BACT requirements for all criteria pollutants including NH_3, and compliance with this rule is expected.

RULE 1303(b)(2)-Offsets

This facility will be operating the turbines as peaking units which will be conditioned based on fuel usage. Therefore, the facility's PTE will be based on the total amount of fuel consumed per year. Because of the limits on fuel usage, offsets will not be required for CO, VOC, PM_{10}, or SOx because the facility's expected emission increase from the simultaneous operation of both turbines under this operating schedule will be below the thresholds specified in Rule 1304(d)(1). Detailed calculations are shown in the Appendix.

Facility Total Potential to Emit (lb/yr) – Commissioning Year

	CO	NOx	ROG	PM10	SOx
Commissioning (200 hrs)	18,400	18,000	800	1,200	106
Normal operations	9,800	6,400	1,340	4,286	407
Start-up	5,200	6,600	400	1,098	106
Shut down	4,400	2,600	400	1,200	106
Total Maximum	37,800	33,600	2,940	7,784	725

Facility Total Potential to Emit (lb/yr) – Normal (Non-Commissioning) Year

	CO	NOx	ROG	PM10	SOx
Normal operations	12,600	8,180	2,092	5,460	480
Start-up	5,200	6,600	400	1,100	106
Shut down	4,400	2,600	400	1,200	106
Total Maximum	22,200	17,380	2,892	7,760	692

The following table compares the maximum emissions from either a commissioning year or normal operating year with the Rule 1304 Thresholds. Values are in lb/yr and values in tons/yr are shown in parentheses.

	CO	NOx	ROG	PM10	SOx
Maximum Emissions	37,800 (18.9)	33,600 (16.8)	2,940 (1.47)	7,784 (3.89)	725 (0.36)
Rule 1304 Threshold	58,000 (29)	N/A	8,000 (4)	8,000 (4)	8,000 (4)
Compliance (Y/N)	Yes	N/A	Yes	Yes	Yes

RULE 1303(b)(3)-Sensitive Zone Requirements

Rule 1303(b)(3) states that unless credits are obtained from the Priority Reserve, facilities located in the South Coast Air Basin are subject to the Sensitive Zone requirements specified in Health & Safety Code Section 40410.5. This section is not applicable because the facility will not need to secure emission offsets.

RULE 1303(b)(4)-Facility Compliance

The new facility will comply with all applicable Rules and Regulations of the AQMD.

RULE 1401- NEW SOURCE REVIEW OF TOXIC AIR CONTAMINANTS

District Rule 1401-New Source Review for Toxic Air Contaminants (TAC), applicable to applications deemed complete on or after June 1, 1990, imposes specific limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard indices from new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants listed in Table I of Rule 1401. The rule establishes allowable risks for permit units requiring new permits pursuant to Rules 201 or 203. The installation of the new gas turbines and the associated air pollution control equipment is "new construction", and since there will be an increase in toxic air contaminants, Rule 1401 applies.

DEFINITIONS:

Maximum Individual Cancer Risk (MICR) - The estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to toxic air contaminants over a period of 70 years for residential and 46 years for worker receptor locations. (The MICR calculations, if applicable, include any and all multi-pathway considerations).

Cancer Burden - The estimated increase in the occurrence of cancer cases in a population subject to a MICR of greater than or equal to one in one million (1EE-6) resulting from exposure to toxic air contaminants.

Acute Hazard Index (HIA) - The ratio of the estimated maximum one-hour concentration of a toxic air contaminant for a potential maximally exposed individual to its acute reference exposure level.

Chronic Hazard Index (HIC) - The ratio of the estimated long-term level of exposure to a toxic air contaminant for a potential maximally exposed individual to its chronic reference exposure level.

In general, the following five requirements must be met before a permit to construct can be granted for any affected equipment:

1. The cumulative increase in maximum individual cancer risk shall not exceed one-in-a-million (1EE-6) if T-BACT is not used; or,
2. The cumulative increase in maximum individual cancer risk shall not exceed ten-in-a-million (1EE-5) if T-BACT is used.
3. The cumulative cancer burden (increases in cancer in the population) shall not exceed 0.5.
4. For target organ systems, neither the cumulative increase in total chronic hazard index (HIC) nor the total acute hazard index (HIA) shall exceed 1.0 for all target organ systems, or an alternate hazard index level deemed to be safe.
5. Rule 212(c)(3) requires public notification if the MICR, based on Rule 1401, exceeds 1EE-6, due to a project's proposed construction, modification, or relocation for facilities with more than one permitted equipment, or facilities under RECLAIM or Title V, regardless of the number of equipment, unless the applicant can show the total facility-wide MICR is less than 1EE-5. For facilities with only a single piece of permitted equipment, the MICR level must not exceed 1EE-5. The circulation and distribution of the notifications must meet the criteria in Rule 212.

The applicant has conducted a Tier 4 health risk assessment (HRA) for Rule 1401 to evaluate the project's potential health risks. The HRA included the use of the Industrial Source Complex-Short Term 3 (ISCST3) dispersion model results with the emission rate set at 1.0 gram/second which was used to determine the maximum downwind dispersion factor used for the air quality modeling calculations in Regulation XIII. Toxic pollutant emissions from the proposed project were derived from factors provided by USEPA AP-42 and CARB CATEF guidelines for natural gas fired gas turbines. The factors, however, are based on a HHV of 1,020 BTU/scf which is slightly lower than the fuel being burned in the turbines. Therefore, the factors below have been adjusted to reflect the correct HHV of 1,050 BTU/scf.

The estimates are based on a maximum fuel consumption rate of 0.467 mmcf/hr and an annual operating schedule of 1,330 hours/yr. The table below shows the residential and commercial MICR for a *single* gas turbine burning a maximum of 0.467 mmcf/hr of natural gas and operating a maximum of 1,330 hours/yr.

Acute Hazard Index (Residential Receptor)

Contaminant	Qhr	X/Qhr	REL	AF	HIA
Acrolein $_{EYE}$	3.932EE-04	5.57694	1.90EE-01	None	1.154EE-02
Acrolein $_{RESP}$	3.932EE-04	5.57694	1.90EE-01	None	1.154EE-02
Ammonia $_{RESP}$	2.795EE-02	5.57694	3.20EE+03	None	4.871EE-05
Benzene $_{CV/BL}$	7.267EE-04	5.57694	1.30EE+03	0.83	2.587EE-06
Benzene $_{IMMUN}$	7.267EE-04	5.57694	1.30EE+03	0.83	2.587EE-06
Benzene $_{REPR}$	7.267EE-04	5.57694	1.30EE+03	0.83	2.587EE-06
Formaldehyde $_{EYE}$	4.380EE-02	5.57694	9.40EE+01	None	2.599EE-03
Formaldehyde $_{IMMUN}$	4.380EE-02	5.57694	9.40EE+01	None	2.599EE-03
Formaldehyde $_{RESP}$	4.380EE-02	5.57694	9.40EE+01	None	2.599EE-03
Toluene $_{RESP}$	8.300EE-03	5.57694	3.70EE+04	None	1.251EE-06
Toluene $_{REPR}$	8.300EE-03	5.57694	3.70EE+04	None	1.251EE-06
Toluene $_{CNS/PNS}$	8.300EE-03	5.57694	3.70EE+04	None	1.251EE-06
Xylene $_{RESP}$	3.938EE-03	5.57694	2.20EE+04	None	9.983EE-07
Xylene $_{CNS/PNS}$	3.938EE-03	5.57694	2.20EE+04	None	9.983EE-07
				Cumulative HIA	**3.092EE-02**

Chronic Hazard Index (Residential Receptor)

Contaminant	Q	X/Q	MET	MP	REL	HIC
Acetaldehyde $_{RESP}$	2.484EE-03	0.22267	0.82	1.00	9.00EE 00	0.000000
Acrolein $_{EYE}$	3.932EE-04	0.22267	0.82	1.00	6.00EE-02	1.197EE-03
Acrolein $_{RESP}$	3.932EE-04	0.22267	0.82	1.00	6.00EE-02	1.197EE-03
Ammonia $_{RESP}$	2.795EE-02	0.22267	0.82	1.00	2.00EE+02	2.552EE-05
Benzene $_{CV/BL}$	7.267EE-04	0.22267	0.82	1.00	6.00EE+01	0.000000
Benzene $_{IMMUN}$	7.267EE-04	0.22267	0.82	1.00	6.00EE+01	0.000000
Benzene $_{REPR}$	7.267EE-04	0.22267	0.82	1.00	6.00EE+01	0.000000
1,3-Butadiene $_{REPR}$	2.653EE-05	0.22267	0.82	1.00	2.00EE+01	0.000000
Ethylbenzene $_{ENDO}$	1.981EE-03	0.22267	0.82	1.00	2.00EE+03	0.000000
Ethylbenzene $_{KIDN}$	1.981EE-03	0.22267	0.82	1.00	2.00EE+03	0.000000
Ethylbenzene $_{GI/LV}$	1.981EE-03	0.22267	0.82	1.00	2.00EE+03	0.000000
Ethylbenzene $_{REPR}$	1.981EE-03	0.22267	0.82	1.00	2.00EE+03	0.000000
Formaldehyde $_{EYE}$	4.380EE-02	0.22267	0.82	1.00	3.00EE 00	2.666EE-03
Formaldehyde $_{IMMUN}$	4.380EE-02	0.22267	0.82	1.00	3.00EE 00	2.666EE-03
Formaldehyde $_{RESP}$	4.380EE-02	0.22267	0.82	1.00	3.00EE 00	2.666EE-03
Napthalene $_{RESP}$	7.873EE-05	0.22267	0.82	1.00	9.00EE 00	0.000000
Napthalene $_{RESP}$	7.873EE-05	0.22267	0.82	1.00	9.00EE 00	0.000000
PAHs	1.375EE-04	0.22267	0.82	None	None	N/A
Propylene $_{RESP}$	1.211EE-01	0.22267	0.82	1.00	3.00EE+03	0.000000
Toluene $_{RESP}$	8.300EE-03	0.22267	0.82	1.00	3.00EE+02	0.000000
Toluene $_{REPR}$	8.300EE-03	0.22267	0.82	1.00	3.00EE+02	0.000000
Toluene $_{CNS/PNS}$	8.300EE-03	0.22267	0.82	1.00	3.00EE+02	0.000000
Xylene $_{RESP}$	3.938EE-03	0.22267	0.82	1.00	7.00EE+02	0.000000
Xylene $_{CNS/PNS}$	3.938EE-03	0.22267	0.82	1.00	7.00EE+02	0.000000
					Cumulative HIC	**1.042EE-02**

Rule 1401 Summary

The applicant has also calculated the HIA and HIC for the commercial receptor with similar results and therefore, it can be safely concluded that the existing HIC and HIA at the commercial receptor will not exceed 1.0. The cancer burden for this facility need not be computed since the MICR for both commercial and residential receptors are below 1EE-06. The results from the analysis are shown in the table below: (Again, the values for MICR, HIA, HIC for commercial and residential receptors are slightly higher than the values calculated by the applicant because the analysis contained herein assumes no control efficiency for toxics whereas the applicant's analysis assumes and 85% control efficiency for toxics). The applicants numbers for HIA and HIC for the residential receptor also differ in magnitude because the applicant did not calculate the indices on a per target organ basis. Therefore the HIA and

CALCULATION OF MICR:

Maximum Individual Cancer Risk is calculated as follows:

$$MICR = Q \times \left(\frac{X}{Q}\right) \times MP \times URF \times MET \times LEA$$

Where:

Q	=	Maximum emission rate of specific pollutant, (g/s)
X/Q	=	Dispersion factor in ($\mu g/m^3$)/(g/s), from ISCST3 results
MP	=	Multi-pathway factor (dimensionless)
MET	=	Meteorological correction factor (dimensionless)
URF	=	Unit risk factor in $(\mu g/m^3)^{-1}$
LEA	=	Lifetime exposure adjustment factor (dimensionless). For a residential or sensitive receptor, LEA = 1.0. For an offsite worker, LEA = 0.14 if the equipment operates 24 hours/day, 365 days/year. LEA = 0.66 for all other operating schedules.

Toxic Emission Rates, Residential & Commercial MICR for Each Gas Turbine

Pollutant	EF lb/mmscf	Fuel Usage, mmscf/hr	Q, g/s	X/Q ($\mu g/m^3$)/(g/s)	URF $(\mu g/m^3)^{-1}$	MP	LEA	MICRr	MICRc
Acetaldehyde	4.22EE-02	0.467	2.484EE-03	0.22267	2.70EE-06	1.00	1.00/0.66	1.493EE-09	9.854EE-10
Acrolien	6.67EE-03	0.467	3.932EE-04	0.22267	N/A	N/A	N/A		
Ammonia	7.12EE00	0.467	2.795EE-02	0.22267	N/A	N/A	N/A		
Benzene	1.23EE-02	0.467	7.267EE-04	0.22267	2.90EE-05	1.00	1.00/0.66	4.693EE-09	3.097EE-09
1,3-Butadiene	4.51EE-04	0.467	2.653EE-05	0.22267	1.70EE-04	1.00	1.00/0.66	1.004EE-09	6.626EE-10
Ethylbenzene	3.36EE-02	0.467	1.981EE-03	0.22267	N/A	N/A	N/A		
Formaldehyde	7.44EE-01	0.467	4.380EE-02	0.22267	6.00EE-06	1.00	1.00/0.66	5.852EE-08	3.862EE-08
Napthalene	1.34EE-03	0.467	7.873EE-05	0.22267	N/A	N/A	N/A		
PAHs	2.34EE-03	0.467	1.375EE-04	0.22267	1.1EE-03	12.7	1.00/0.66	4.277EE-07	2.823EE-07
Propylene	2.00EE00	0.467	1.211EE-01	0.22267	N/A	N/A	N/A		
Toluene	1.41EE-01	0.467	8.300EE-03	0.22267	N/A	N/A	N/A		
Xylene	6.69EE-02	0.467	3.938EE-03	0.22267	N/A	N/A	N/A		
							TOTAL RISK	**4.934EE-07**	**3.257EE-07**

Toxic Control Efficiencies Across the CO Catalyst

The engineering analysis performed by the consultant (SCEC Air Quality Specialists) assumes the CO catalyst will control each toxic pollutant by 85%. This assumption was based on the August 21, 2001 EPA memorandum titled "Hazardous Air Pollutant (HAP) Emission Control Technology for New Stationary Combustion Turbines" by Sims Roy of the Emission Standards Division (see copy of memorandum in the engineering file). This memorandum specifically states that the performance of an oxidation catalyst on a combustion turbine will result in a 90-plus percent control of CO and about 85-90 percent control of formaldehyde emissions. It further states that similar emission reductions are also achieved on other HAP pollutants. However, the stated 85-90 percent reduction efficiencies for HAPs are based on SCONOX technology which is not being used at Riverside. Although based on permitting experience with other simple cycle gas turbines using SCR and CO catalysts, some reductions in HAPs can be expected to occur across a CO catalyst, reductions in HAPs are typically much lower, and differ from pollutant-to-pollutant.

The applicant has not provided evidence in the form of a source test or other acceptable means which would demonstrate that a non-SCONOX based CO catalyst such as being proposed for Riverside can reduce HAPS by 85-90 percent. Therefore, taking a more conservative approach, the Rule 1401 MICR values in the above table were re-computed using zero percent control efficiency for HAPs, which results in MICR values slightly greater than those calculated by the applicant, but less than 1EE-06 for both

residential and commercial receptors as shown in bold. A zero percent control efficiency for HAPs is a worst case scenario.

CALCULATION OF HIA and HIC

Chronic and Acute Health Risk Indices per target organ are calculated from the following formulas:

$$\text{Total HIC} = \left\{ \Sigma TAC \left[Q \times \frac{X}{Q} \right] \times MP \times MET \times \frac{1}{\text{chronicRELTAC}} \right\}$$

$$\text{Total HIA} = \left\{ \Sigma TAC \left[Qhr \times \frac{X}{Qhr} \right] \times AF \times \frac{1}{\text{acuteRELTAC}} \right\}$$

Where:

ΣTAC	=	Sum of the contribution for each toxic air contaminant
HIC	=	Chronic hazard index (calculated for each target organ)
HIA	=	Acute hazard index (calculated for each target organ)
Q	=	Emission rate of each toxic air contaminant
X/Q	=	Annual average dispersion factor in ($\mu g/m^3$)/(;lm, ton/yr) from ISCST3 results
X/Qhr	=	1-hour average dispersion factor in ($\mu g/m^3$)/(lb/hr) from ISCST3 results
REL_{TAC}	=	Chronic or acute reference exposure level in ($\mu g/m^3$) for each TAC
MP	=	Multi-pathway adjustment factor, dimensionless
MET	=	Meteorological correction factor, dimensionless
AF	=	Adjustment factor

HIC values were adjusted to account for a per target organ basis and because of this, the AQMD's results are slightly higher, but well within the tolerances or Rule 1401, as shown in the table below. The table below also shows the risk and hazard index values for a single turbine and the acceptable Rule 1401 limits. Based on the calculated values in the table below, the equipment can be expected to comply with the requirements of Rule 1401. It should also be noted that because both the residential and commercial MICRs are below 1.0EE-06, the cancer burden need not be computed.

Results of Rule 1401 Analysis

	Applicant's Results	AQMD Results	Rule 1401 Requirements	Comply (Y/N)
MICRr	1.12EE-08	4.934EE-07	<1.0EE-06 (no TBACT) <10EE-06 (w/TBACT)	YES
MICRc	7.42EE-09	3.257EE-07	<1.0EE-06 (no TBACT) <10EE-06 (w/TBACT)	YES
HIAr[3]	0.00285	0.0309	<1.0	YES
HICr[6]	0.00018	0.0104	<1.0	YES
Cancer Burden	N/A	N/A	Applicable only if MICRr/c >1.0EE-06	N/A

PROHIBITORY RULE EVALUATION

RULE 212-Standards for Approving Permits

Rule 212 requires that a person shall not build, erect, install, alter, or replace any equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants without first obtaining written authorization for such construction from the Executive Officer. Rule 212(c)(2) states that a project requires written notification if there is an emission increase for ANY criteria pollutant in excess of the daily maximums specified in Rule 212(g), or if the MICR is equal to or greater than one in a million (1EE-6) during a lifetime (70 years) for facilities with more than one permitted unit, source under Regulation XX, or equipment under Regulation XXX, unless the applicant demonstrates to the satisfaction of the Executive Officer that the total facility-wide maximum individual cancer risk is below ten in a million (10EE-6) using the risk assessment procedures and toxic air contaminants specified under Rule 1402; or, ten in a million (10EE-6) during a lifetime (70 years) for facilities with a single permitted unit, source under Regulation XX, or equipment under Regulation XXX. The total facility wide residential MICR is less than 1EE-6. However, since the emissions of criteria pollutants for each turbine exceeds the thresholds in Rule 212(g), a public notice is required in accordance with the requirements of Rule 212. A public notice will be issued followed by a 30-day public comment period prior to issuance of a permit.

RULE 401-Visible Emissions

This rule limits visible emissions to an opacity of less than 20 percent (Ringlemann No.1), as published by the United States Bureau of Mines. It is unlikely, with the use of the SCR /CO catalyst configuration that there will be visible emissions. However, in the unlikely event that visible emissions do occur, anything greater than 20 percent opacity is not expected to last for greater than 3 minutes. During normal operation, no visible emissions are expected. Therefore, based on the above and on experience with other LM6000 turbines, compliance with this rule is expected.

[3] HIA and HIC at the residential receptor are well below 1.0 (see table above). Based on the applicant's and AQMD's calculated results for the residential receptor, similar results for the HIA and HIC at the commercial receptor can be expected and are assumed to be far less than 1.0.

RULE 402-Nuisance
This rule requires that a person not discharge from any source whatsoever 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 cause, or have a natural tendency to cause injury or damage to business or property. The new turbines will be operated in a fairly remote (non-residential) area of Riverside, and are not expected to create a public nuisance based on experience with identical turbines. Therefore, compliance with Rule 402 is expected.

RULE 403-Fugitive Dust
The purpose of this rule is to reduce the amount of particulate matter entrained in the ambient air as a result of man-made fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. The provisions of this rule apply to any activity or man-made condition capable of generating fugitive dust. This rule prohibits emissions of fugitive dust beyond the property line of the emission source. The applicant will be taking steps to prevent and/or reduce or mitigate fugitive dust emissions from the project site. Such measures include covering loose material on haul vehicles, watering, and using chemical stabilizers when necessary. The installation and operation of the turbines is expected to comply with this rule.

RULE 404-Particulate Matter-Concentration
This rule limits particulate matter grain loading to a level of 0.0271 grains/dscf for exhaust flows of 176,600 dscfm and 0.0253 grains/dscf for exhaust flows of 211,900 dscfm. The proposed turbines are guaranteed to emit no more than 21,000 grains of PM10 per hour (0.0018 grains/dscf) at an exhaust flow rate of 193,164, thus the concentration is well below the limits of Rule 404 and compliance with this rule is expected.

RULE 407-Liquid and Gaseous Air Contaminants
This rule limits CO emissions to 2,000 ppmvd and SO_2 emissions to 500 ppmvd, averaged over 15 minutes. For CO, each turbine will meet the CO BACT limit of 6.0 ppmvd @ 15% O_2, 1-hr average, and each turbine will be conditioned as such. For SO_2, equipment which complies with Rule 431.1 is exempt from the SO_2 limit in Rule 407. The applicant will be required to comply with Rule 431.1 and thus the SO_2 limit in Rule 407 will not apply.

RULE 409-Combustion Contaminants
This rule restricts the discharge of contaminants from the combustion of fuel to 0.23 grams per cubic meter (0.1 grain per cubic foot) of gas, calculated to 12% CO_2, averaged over 15 minutes. Based on experience with identical LM6000 turbines, this equipment is expected to comply.

RULE 431.1-Sulfur Content of Gaseous Fuels
This rule restricts the sale or use of gaseous fuels that exceed a sulfur content limit of 16 ppmv for natural gas, calculated as H_2S. The equipment will burn pipeline quality natural gas as purchased from the Gas Company and this fuel will meet the 16 ppmv standard. Compliance with this rule is expected.

RULE 474-Fuel Burning Equipment-Oxides of Nitrogen
Since the equipment is expected to comply with BACT, the NOx emissions should be well below the 125 ppmvd limit required by this rule. Compliance is expected.

RULE 1303(b)(4)-Facility Compliance
This facility is expected to comply with all applicable Rules and Regulations of the AQMD.

RULE 1303(b)(5)-Major Polluting Facility
This rule is not applicable to this facility.

RULE 1304-Exemptions
Rule 1304(d)(1) allows a facility an exemption from offsets provided that the facility's PTE is less than the emission thresholds listed in Table A of Rule 1304. The applicant will be operating the new facility as a peaking plant which will operate less than 1,330 hours per year and will be conditioned to remain below the thresholds of Table A. The facility will be further conditioned to both monthly and annual fuel usage. Compliance with this rule is expected.

REGULATION XVII-Prevention of Significant Deterioration
Due to revisions to 40 CFR 52.21, EPA has determined as of March 3, 2003, that the AQMD's Regulation XVII may no longer generally meet the CFR. As a result of this determination, the EPA has revoked and rescinded the AQMD's authority to implement the Prevention of Significant Deterioration (PSD) program for issuing and modifying federal permits for new and modified major sources of attainment pollutants. Therefore, the EPA will process all PSD permits, until authority is again granted to the AQMD for implementing the program. The AQMD has sent the applicant a notification to contact the EPA directly for applicability of PSD.

REGULATION XX-RECLAIM
This facility has elected to enter RECLAIM and will secure the necessary RTC's prior to issuance of the permits. The applicant has is required to surrender 19,206 RTC's to fully offset emissions from both turbines during normal operations. For the first operating year, additional offsets will be required to offset increased emissions during turbine commissioning and to account for any operations that occur prior to CEMS certification tests. Estimated first year emissions are 35,420 lb, due to the 200 hour commissioning period for both turbines. The applicant also states that there will be a need for additional RTCs to accommodate the 50 hours of operation between commissioning operations and final certification for each turbine. Therefore, the total offset requirement for the first year of operation is expected to be 39,620 lb. As of the date of this evaluation, the applicant has indicated that the necessary offsets have been secured for the first year of operation.

INTERIM PERIOD NOx EMISSION FACTOR
RECLAIM requires a single NOx emission factor to be used for reporting emissions during the interim reporting period. The interim period is defined as a period, typically 12 months in duration, when the NOx CEMS has not been certified. During this period, the emissions cannot be accurately quantified, monitored, or verified. The emissions during this period are assumed to be at uncontrolled levels. The interim reporting period can be broken down into the two parts which includes the commissioning period[4] in which an uncontrolled emission rate of 25 ppmv is assumed, and the remaining period at which controlled rates of 2.5 ppmv are assumed.

[4] The commissioning period is when the facility follows a step by step schedule to fine-tune the gas turbine's combustion and turbo machinery systems. When the system is successfully commissioned, the gas turbines will reach their optimal performance

Emissions during the commissioning period

Pollutants	NOx	CO
Total emissions (lbs)	12,580	9,180
Total Fuel (mmscf)	351.95	351.95
Emission Factor (lb/mmscf)	35.7	26.08

Emissions during the remaining period

Pollutants	NOx	CO
Total emissions (lbs)	7,520	5,493.57
Total Fuel (mmscf)	818.69	818.69
Emission Factor (lb/mmscf)	9.19	6.71

NOx emission factor during the interim period

Period	NOx Emissions (lb)	Fuel Usage (mmscf)	Emission Factor (lb/mmscf)
Commissioning	12,580	351.95	35.7
Remainder of year	7,520	818.69	9.19
Interim Period Total	20,100	1170.64	**17.18**

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The California Energy Commission (CEC) is the lead agency for this project under CEQA and will prepare a study which examines public health and safety and environmental impacts of the proposed project. The CEC is responsible for reviewing and ultimately approving or denying all operating licenses for plants 50 MW and greater proposed for construction in California. The CEC allows projects with a capacity between 50 and 100 MW to proceed with local approval rather than requiring a CEC license if the CEC finds that the project will not create a substantial adverse impact on the environment or energy resources.

The applicant has submitted an application for a Small Power Plant Exemption (SPPE) to the CEC and currently the CEC is in the process of preparing the Final Study and a Public Hearing Conference will be held to determine if a Negative Declaration can be issued for the project.

NSPS for Stationary Gas Turbines – 40CFR Part 60 Subpart GG

Subpart GG applies to the subject turbines because the heat input is greater than 10.14 MMBtu/hour (10.7 gigajoules per hour). (The actual rating is $490*10^6$ BTU/hr * 1,055 joules/BTU = 517 gigajoules/hr). The applicable standards are determined as follows:

SOx = 150 ppmv

For NOx,

STD = 0.0075(14.4/Y) + F

where:

STD = allowable NOx emissions in percent volume at 15% O_2, dry basis
Y = manufacturer's rating in KJ/watt-hr
F = 0 for fuel with nitrogen content < 0.015 % weight
0.04 * %N for 0.015 < %N < 0.1

Maximum heat input = 490 MMBTU/hr
Maximum net output = 49.8 MW
Therefore, Y = 490MMBTU/hr / 49.8 MW * 1,055 joules/BTU * kJ/1000j = 10.381 KJ/watt-hr
For natural gas, nitrogen < 0.015%w, therefore, F=0

STD = 0.0075(14.4/10.381) + 0 = **104 ppmv NOx**
Since the proposed limit of 2.5 ppmv << 104 ppmv, compliance is expected.

40CFR Part 72 – Acid Rain Provisions

The City of Riverside is subject to the requirements of the federal acid rain program because the generator will be rated at greater than 25 MW. This program is similar to RECLAIM in that facilities are required to cover SO2 emisisons with SO2 allowances that are similar in concept to RTC's. So2 allowances are however, not required in any year when the unit emits less than 1,000 lbs of SO2. Facilities with insufficient allowances are required to purchase SO2 credits on the open market. Under this program, both NOx and SO2 emissions will be monitored and reported directly to USEPA. Both gas turbines will be fired with pipeline quality natural gas, with a sulfur content of less than 16 ppmv. Based on the above, compliance with this rule is expected.

REGULATION XXX – Title V

The City of Riverside is a Title V facility because the facility is subject to the federal acid rain provisions. The initial Title V permit will be processed and the required public notice will be sent along with the Rule 212(g) public notice, which is also required for this project. EPA is afforded the opportunity to review and comment on the project within a 45-day review period.

OVERALL EVALUATION / RECOMMENDATION(S)

Issue a facility Permit to Operate with the following permit conditions.

PERMIT CONDITIONS

A/N's 426694 & 426695 (LM6000 PCSprint Gas Turbines)

A63.1 The operator shall limit emission from this equipment as follows:

CONTAMINANT	EMISSION LIMIT
PM_{10}	2,330 LBS IN ANY ONE MONTH
CO	7,263 LBS IN ANY ONE MONTH
SOx	212 LBS IN ANY ONE MONTH
VOC	887 LBS IN ANY ONE MONTH

For the purposes of this condition, the limit(s) shall be based on the emissions from a single turbine. The operator shall calculate the monthly emission limit(s) by using monthly fuel use data, and the following emission factors: PM_{10} 6.93 lb/MMSCF; SOx 0.6 lb/mmscf; and VOC 2.601 lb/mmscf. Compliance with the CO emission limit shall be verified through CEMS data. If CO CEMS data is not available, CO emissions shall be calculated using monthly fuel usage and the emission factor of 26.08 lb/mmscf during commissioning of the turbines, and 6.71 lb/mmscf during normal operation.

[Rule 1303 – Offsets]

A63.2 The operator shall limit emission from this equipment as follows:

CONTAMINANT	EMISSION LIMIT
PM_{10}	7,806 LBS IN ANY ONE YEAR
CO	24,339 LBS IN ANY ONE YEAR
SOx	710 LBS IN ANY ONE YEAR
VOC	2,973 LBS IN ANY ONE YEAR

For the purposes of this condition, the limit(s) shall be based on the total combined facility emissions. The operator shall calculate the monthly emission limit(s) by using annual fuel use data, and the following emission factors: PM_{10} 6.93 lb/MMSCF; SOx 0.6 lb/mmscf; and VOC 2.601 lb/mmscf. Compliance with the CO emission limit shall be verified through CEMS data. If CO CEMS data is not available, CO emissions shall be calculated using annual fuel usage and the emission factor of 26.08 lb/mmscf during commissioning of the turbines, and 6.71 lb/mmscf during normal operation. For the purpose of this condition, "annual" shall be defined as the time period commencing and ending with the RECLAIM compliance year for this facility permit.

[Rule 1303 – Offsets]

A99.1 The 2.5 PPM NOx emission limits shall not apply during turbine commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 200 hours per turbine. Start-up time shall not exceed 40 minutes for each start-up. Shutdown periods shall not exceed 10 minutes for each shutdown. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

[Rule 2005]

A99.2 The 6.0 PPM CO emission limits shall not apply during turbine commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 200 hours per turbine. Start-up time shall not exceed 40 minutes for each start-up. Shutdown periods shall not exceed 10 minutes for each shutdown. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

[Rule 1303(a) – BACT, Rule 1303(b)(1) – Modeling, Rule 1303(b)(2) - Offsets]

A99.3 The 17.18 LBS/MMCF NOx emission limits shall only apply during the interim reporting period to report RECLAIM emissions. The interim reporting period shall not exceed 12 months from entry into RECLAIM.

[Rule 2012 – Requirements for Monitoring, Reporting and Recordkeeping for Oxides of Nitrogen Emissions]

A195.1 The 2.5 PPMV NOX emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.

[Rule 2005]

A195.2 The 6.0 PPMV CO emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.

[Rule 1303(a) – BACT, Rule 1303(b)(1) – Modeling, Rule 1303(b)(2) - Offsets]

A327.1 For the purpose of determining compliance with District Rule 475, combustion contaminants emissions may exceed the concentration limit or the mass emission limit listed, but not both limits at the same time.

[Rule 475]

D12.4 The operator shall install and maintain a(n) flow meter to accurately indicate the fuel usage being supplied to the turbine.

The operator shall also install and maintain a device to continuously record the parameter being measured

[Rule 1303(b)(2) – Offset, Rule 2012]

C1.1 The operator shall limit the fuel usage to no more than 339 mmcf in any one calendar month.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of a single turbine.

The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition.

[Rule 1303(b)(2) – Offset]

C1.2 The operator shall limit the fuel usage to no more than 1,136 mmcf in any one calendar year.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage for both turbines 1 and 2.

The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition.

[Rule 1303(b)(2) – Offset]

D12.1 The operator shall install and maintain a(n) non-resettable totalizing fuel flow meter to accurately indicate the fuel flow to the turbine.

[Rule 1303(b)(2) – Offset, Rule 2012]

D29.1 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant to be tested	Required Test Method(s)	Averaging Time	Test Location
NOX emissions	District Method 100.1	1 hour	Outlet of the SCR
CO emissions	District Method 100.1	1 hour	Outlet of the SCR
SOX emissions	Approved District method	District approved averaging time	Fuel Sample
VOC emissions	Approved District method	1 hour	Outlet of the SCR
PM10 emissions	Approved District method	District approved averaging time	Outlet of the SCR
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR

The test shall be conducted after AQMD approval of the source test protocol, but no later than 180 days after initial start-up. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (CFH), the flue gas flow rate, and the turbine generating output in MW.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at loads of 100, 75, and 50 percent.

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canistersm maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per EPA Method TO-12 (with pre concentration) and temperature of canisters when extracting samples for analysis is not below 70 deg F.

The use of this alternative method for VOC compliance determination does not mean that it is more accurate than AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval except for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.

[Rule 1303(a)(1) – BACT, Rule 1303(b)(2) – Offset, Rule 2005]

D29.2 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant to be tested	Required Test Method(s)	Averaging Time	Test Location
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR

The test shall be conducted and the results submitted to the District within 45 days after the test date. The AQMD shall be notified of the date and time of the test at least 7 days prior to the test.

The test shall be conducted at least quarterly during the first twelve months of operation and at least annually thereafter. The NOx concentration, as determined by the CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over a 60 minute averaging time period.

The test shall be conducted to demonstrate compliance with the Rule 1303 concentration limit

[Rule 1303(a)(1) – BACT]

D29.3 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant to be tested	Required Test Method(s)	Averaging Time	Test Location
SOX emissions	Approved District method	District approved averaging time	Fuel Sample
VOC emissions	Approved District method	1 hour	Outlet of the SCR
PM10 emissions	Approved District method	District approved averaging time	Outlet of the SCR

The test shall be conducted at least once every three years.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (CFH), the flue gas flow rate, and the turbine generating output in MW.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at 100 percent load.

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canistersm maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis

of canisters are per EPA Method TO-12 (with pre concentration) and temperature of canisters when extracting samples for analysis is not below 70 deg F.

The use of this alternative method for VOC compliance determination does not mean that it is more accurate than AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval except for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.

[Rule 1303(a)(1) – BACT, Rule 1303(b)(2) – Offset]

D82.1 The operator shall install and maintain a CEMS to measure the following parameters:

NOx and CO concentration in ppmv
Concentrations shall be corrected to 15 percent oxygen on a dry basis
The CEMS will convert the actual NOx and CO concentrations to mass emission rates (lbs/hr) and record the hourly emission rates on a continuous basis.
The CEMS shall be installed and operated in accordance with an approved AQMD Rule 218 and 2012 CEMS plan application. The operator shall not install the CEMS prior to receiving initial approval from AQMD.
The CEMS shall be installed and operated to measure NOx and CO concentration over a 15 minute averaging time period.
The CEMS shall be installed and operating no later than 90 days after initial startup of the turbine.

[Rule 1303(a)(1) – BACT, Rule 1303(b)(2) – Offset]

D82.2 The operator shall install and maintain a CEMS to measure the following parameters:

NOx concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis
The CEMS shall be installed and operating no later than 90 days after initial start-up of the turbine and shall comply with the requirements of Rule 2012. During the interim period between the initial start-up and the provisional certification date of the CEMS, the operator shall comply with the monitoring requirements of Rule 2012(h)(2) and 2012(h)(3). Within two weeks of the turbine start-up date, the operator shall provide written notification to the District of the exact date of start-up.

The CEMS shall be installed and operating (for BACT purposes only) no later than 90 days after initial start up of the turbine.

[Rule 2005]

E193.1 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

In accordance with all mitigation measures stipulated in the Final Energy Commission Decision for 04-SPPE-1 project.

[CEQA]

I296.1 This equipment shall not be operated unless the operator demonstrates to the Executive Officer that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the first compliance year of operation, the facility holds sufficient RTCs in an amount equal to the annual emission increase.

To comply with this condition, the operator shall prior to the 1st compliance year hold a minimum NOx RTCs of 39,620 lbs/yr. This condition shall apply during the 1st 12 months of operation, commencing with the initial operation of the 1st gas turbine (Devices D1 or D5)

To comply with this condition, the operator shall, prior to the beginning of all years subsequent to the 1st compliance year, hold a minimum of 23,452 lbs of NOx RTC's for operation of all equipment at the facility. In accordance with Rule 2005(f), unused RTC's may be sold only during the reconciliation period for the fourth quarter of the applicable compliance year inclusive of the 1st compliance year.

[Rule 2005]

K40.1 The operator shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.
Emission data shall be expressed in terms of concentration (ppmv) corrected to 15 percent oxygen (dry basis), mass rate (lb/hr), and lb/MMCF. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains/DSCF.
All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute.
All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (CFH), the flue gas temperature, and the generator power output (MW) under which the test was conducted.

[Rule 1303(a)(1) – BACT, Rule 1303(b)(2) – Offset, Rule 2005]

K67.1 The operator shall keep records in a manner approved by the District, for the following parameter(s) or item(s):

Natural gas fuel use after CEMS certification
Natural gas fuel use during the commissioning period
Natural gas fuel use after the commissioning period and prior to CEMS certification

[Rule 2012]

A/N's 426696 & 426697 (SCR/CO Catalyst)

A195.3 The 5 ppmv NH3 emission limit is averaged over 60 minutes at 15% O2, dry basis. The operator shall calculate and continuously record the NH3 slip concentration using the following:

NH3 (ppmv) = [a–b*c/1EE+06]*1EE+06/b

where,
a = NH3 injection rate (lbs/hr)/17(lb/lb-mol)
b = dry exhaust gas flow rate (scf/hr)/385.5 scf/lb-mol)
c = change in measured NOx across the SCR (ppmvd at 15% O2)

The operator shall install and maintain a NOx analyzer to measure the SCR inlet NOx ppmv accurate to plus or minus 5 percent calibrated at least once every twelve months.
The NOx analyzer shall be installed and operated within 90 days of initial start-up.
The operator shall use the above described method or another alternative method approved by the Executive Officer.
The ammonia slip calculation procedures described above shall not be used for compliance determination or emission information without corroborative data using an approved reference method for the determination of ammonia.

[Rule 1303(a)(1) – BACT, Rule 2012]

D12.2 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

The operator shall also install and maintain a device to continuously record the parameter being measured.
The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every twelve months.

[Rule 1303(a)(1) – BACT, Rule 2005]

D12.3 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the SCR reactor.

The operator shall also install and maintain a device to continuously record the parameter being measured.
The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every twelve months.

[Rule 1303(a)(1) – BACT, Rule 2005]

D12.4 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column.

The operator shall also install and maintain a device to continuously record the parameter being measured.
The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every twelve months.

[Rule 1303(a)(1) – BACT, Rule 2005]

E179.1 For the purpose of the following condition number(s), continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour.

Condition Number D12.3
Condition Number D12.2

[Rule 1303(a)(1) – BACT]

E179.2 For the purpose of the following condition numbers, continuous monitoring shall be defined as measuring at least once every month and shall be calculated based upon the average of the continuous monitoring for that month.

Condition Number: D12.4

[Rule 1303(a)(1) – BACT]

A/N 426698 (Ammonia Storage Tank))

C157.1 The operator shall install and maintain a pressure relief valve set at 25 psig.

[Rule 1303(a)(1) – BACT]

C144.1 The operator shall vent this equipment, during filling, only to the vessel from which it is being filled.

[Rule 1303(a)(1) – BACT]

APPENDIX

Appendix A - Emission Calculations

		A/N 426694
BY KLC	DATE 3/28/2004	

Data:

Maximum Fuel Consumption (both turbines) = 1,193,636 MMBTU/year
Maximum Fuel Consumption (both turbines) during normal operations = 910/1330(1,193,636) = 816,698 MMBTU/yr
Standard Conditions: 29.92 inches Hg and 68 degrees Fahrenheit
Emission Factor (lbs/MMbtu) = (ppmvd)*(MW)*(1/SMV)*(20.9/5.9)*(Fd)*(1/1E6)
where,
controlled ppmvd = uncontrolled or controlled concentration corrected to 15% O2
MW = molecular weight (lbs/lb-mole)
SMV = specific molar volume at 68 degrees Fahrenheit = 385.3 dscf/lb-mole
Fd = dry oxygen F-factor for natural gas = 8,710 dscf/MMbtu at 68 degrees Fahrenheit
Emission Rate Uncontrolled = Emission Factor Uncontrolled (lbs/MMbtu) * Heat Input (MMbtu/hr)
Emission Rate Controlled = Emission Factor Controlled (lbs/MMbtu) * Heat Input (MMbtu/hr)

Assumptions:

Uncontrolled Emissions from the Gas Turbines:
NOx = 25 ppm @ 15% O2, CO = 40 ppm @ 15% O2, VOC = 4 ppm @ 15% O2 (applicant's data)
PM10 = 0.0066 lb/MMBTU, and SOx = 0.6 lbs/mmscf
Fuel heat content for natural gas = 1,050 BTU/scf

Total Emissions from both turbines (normal operations)

Pollutant	Fuel Consumption (MMBTU/year)	Pollutant Conc. Uncontrolled (ppmdv)	Pollutant Conc. Controlled (ppmdv)	Molecular Weight (lbs/lb-mole)	Specific Molar Volume (dscf/lb-mole)	Dry Fuel Factor (dscf/MMbtu)	Emission Factor Uncontrolled (lbs/MMbtu)	Emission Factor Controlled (lbs/MMBTU)	Emission Rate Uncontrolled (lbs/yr)	Emission Rate Controlled (lbs/yr)
CO	816,698.0	40	6.0	28	385.3	8,710	0.0897	0.0135	73,247.52	10,987.13
NOx	816,698.0	25	2.5	46	385.3	8,710	0.0921	0.0092	75,209.51	7,520.95
PM10	816,698.0						0.0066	0.0066	5,390.21	5,390.21
VOC	816,698.0	4.0	2.0	16	385.3	8,710	0.0051	0.0026	4,185.57	2,092.79
SOx	816,698.0						0.0006	0.0006	480.41	480.41
NH3	816,698.0		5.0	17	385.3	8,710		0.0068		5,558.96

Appendix C - Start-Up Emissions

BY KLC	DATE 3/28/2004

Hourly Emissions During Start-Up (per turbine)`

Load	Uncontrolled NOx (lb/hr)	Controlled NOx (lb/hr)	Uncontrolled CO (lb/hr)	Controlled CO (lb/hr)	Uncontrolled VOC (lb/hr)	Controlled VOC (lb/hr)	PM10 (lb/hr)	SOx (lb/hr)
4 min (0-20%)	0.15	0.15	2.07	1.14	0.01	0.01	0.04	0.02
6 min (20-100%)	2.47	2.47	5.40	2.76	0.10	0.08	0.21	0.11
30 min (100%)	22.47	12.36	22.97	7.00	0.94	0.61	1.50	0.81
20 min (100%)	14.98	1.50	15.31	2.30	0.63	0.31	1.00	0.54
Total per Start-up	**40.06**	**16.47**	**45.74**	**13.20**	**1.68**	**1.02**	**2.74**	**1.48**

		A/N 426694
BY KLC	DATE 3/28/2004	

Appendix B - Emission Offsets Calculations
Rule 2005 Analysis (RECLAIM Pollutants)

Data:
1. Operating Schedule (1st Year) per gas turbine:
Startups = 200 hours/year
Shutdowns = 200 hours/year
Normal Operations = 960 hours/year
Commissioning Period = 200 hours
Maintenance testing = 10 hours/year

NOx Emissions 1st Year

Gas Turbine/HRSG Operating Condition	Hours per Year	NOx (lbs/hr)	NOx (lbs/year)
Gas Turbine 1 Startup	200	16.47	3,294
Gas Turbine 1 Shutdown	200	6.60	1,320
Gas Turbine 1 Normal Operation	910	4.51	4,104
Gas Turbine 1 Commissioning	200	44.93	8,986
Gas Turbine 1 Maintenance Testing	10	8.38	84
Gas Turbine 1 Interim Period	50	40.44	2,022
Gas Turbine 2 Startup	200	16.47	3,294
Gas Turbine 2 Shutdown	200	6.60	1,320
Gas Turbine 2 Normal Operation	910	4.51	4,104
Gas Turbine 2 Commissioning	200	44.93	8,986
Gas Turbine 2 Maintenance Testing	10	8.38	84
Gas Turbine 2 Interim Period	50	40.44	2,022
Total 1st Year Emissions (lbs/year)			39,620
Offset Ratio			1.0
RTCs (lbs/year)			**39,620**

FACILITY PERMIT TO OPERATE

CITY OF RIVERSIDE PUBLIC UTILITIES DEPT
JURUPA & PAYTON AVE
RIVERSIDE, CA 92504

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Barry R. Wallerstein, D. Env.
EXECUTIVE OFFICER

By _____
Carol Coy
Deputy Executive Officer
Engineering & Compliance

FACILITY PERMIT TO OPERATE
CITY OF RIVERSIDE PUBLIC UTILITIES DEPT

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FACILITY PERMIT TO OPERATE
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SECTION A: FACILITY INFORMATION

LEGAL OWNER &/OR OPERATOR:	CITY OF RIVERSIDE PUBLIC UTILITIES DEPT
LEGAL OPERATOR (if different than owner):	
EQUIPMENT LOCATION:	JURUPA & PAYTON AVE RIVERSIDE, CA 92504
MAILING ADDRESS:	2911 ADAMS ST RIVERSIDE, CA 92504
RESPONSIBLE OFFICIAL:	THOMAS P. EVANS
TITLE:	PUBLIC UTILITIES DIRECTOR
TELEPHONE NUMBER:	(951) 826-5502
CONTACT PERSON:	DAN MC CANN
TITLE:	POWER SCHEDULING/OPERATIONS MANAGER
TELEPHONE NUMBER:	(951) 351-6332

TITLE V	RECLAIM	
YES	NOx:	YES
	SOx:	NO
	CYCLE:	2
	ZONE:	INLAND

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SECTION C: FACILITY PLOT PLAN

(TO BE DEVELOPED)

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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 3 : RULE 219 EXEMPT EQUIPMENT SUBJECT TO SOURCE SPECIFIC RULES					
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E12			VOC: (9) [RULE 1113,11-8-1996;*RULE 1113,7-9-2004;*RULE 1171,11-7-2003]	
RULE 219 EXEMPT EQUIPMENT, EXEMPT HAND WIPING OPERATIONS	E13			VOC: (9) [RULE 1171,11-7-2003]	K67.2

* (1) Denotes RECLAIM emission factor
(2) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5)(5A)(5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS,etc.)
(9) See App B for Emission Limits
(10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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SECTION D: DEVICE ID INDEX

The following sub-section provides an index to the devices that make up the facility description sorted by device ID.

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SECTION D: DEVICE ID INDEX

Device Index For Section D			
Device ID	**Section D Page No.**	**Process**	**System**
E12	1	3	0
E13	1	3	0

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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant 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.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[**RULE 401, 3-2-1984**; RULE 401, 11-9-2001]

DEVICE CONDITIONS

K. Record Keeping/Reporting

K67.2 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

For architectural applications where no thinners, reducers, or other VOC containing materials are added, maintain semi-annual records for all coating consisting of (a) coating type, (b) VOC content as supplied in grams per liter (g/l) of materials for low-solids coatings, (c) VOC content as supplied in g/l of coating, less water and exempt solvent, for other coatings.

For architectural applications where thinners, reducers, or other VOC containing materials are added, maintain daily records for each coating consisting of (a) coating type, (b) VOC content as applied in grams per liter (g/l) of materials used for low-solids coatings, (c) VOC content as applied in g/l of coating, less water and exempt solvent, for other coatings.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : E13]

FACILITY PERMIT TO OPERATE
CITY OF RIVERSIDE PUBLIC UTILITIES DEPT

SECTION E: ADMINISTRATIVE CONDITIONS

The operating conditions in this section shall apply to all permitted equipment at this facility unless superseded by condition(s) listed elsewhere in this permit.

1. The permit shall remain effective unless this permit is suspended, revoked, modified, reissued, denied, or it is expired for nonpayment of permit processing or annual operating fees. [201, 203, 209, 301]

   a. The permit must be renewed annually by paying annual operating fees, and the permit shall expire if annual operating fees are not paid pursuant to requirements of Rule 301(d). [301(d)]
   b. The Permit to Construct listed in Section H shall expire one year from the Permit to Construct issuance date, unless a Permit to Construct extension has been granted by the Executive Officer or unless the equipment has been constructed and the operator has notified the Executive Officer prior to the operation of the equipment, in which case the Permit to Construct serves as a temporary Permit to Operate. [202, 205]
   c. The Title V permit shall expire as specified under Section K of the Title V permit. The permit expiration date of the Title V facility permit does not supercede the requirements of Rule 205. [205, 3004]

2. The operator shall maintain all equipment in such a manner that ensures proper operation of the equipment. [204]

3. This permit does not authorize the emissions of air contaminants in excess of those allowed by Division 26 of the Health and Safety Code of the State of California or the Rules and Regulations of the AQMD. This permit cannot be considered as permission to violate existing laws, ordinances, regulations or statutes of other governmental agencies. [204]

4. The operator shall not use equipment identified in this facility permit as being connected to air pollution control equipment unless they are so vented to the identified air pollution control equipment which is in full use and which has been included in this permit. [204]

5. The operator shall not use any equipment having air pollution control device(s) incorporated within the equipment unless the air pollution control device is in full operation.[204]

6. The operator shall maintain records to demonstrate compliance with rules or permit conditions that limit equipment operating parameters, or the type or quantity of material processed. These records shall be made available to AQMD personnel upon request and be maintained for at least: [204]

FACILITY PERMIT TO OPERATE
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SECTION E: ADMINISTRATIVE CONDITIONS

a. Three years for a facility not subject to Title V; or
b. Five years for a facility subject to Title V.

7. The operator shall maintain and operate all equipment to ensure compliance with all emission limits as specified in this facility permit. Compliance with emission limits shall be determined according to the following specifications, unless otherwise specified by AQMD rules or permit conditions: [204]

   a. For internal combustion engines and gas turbines, measured concentrations shall be corrected to 15 percent stack-gas oxygen content on a dry basis and be averaged over a period of 15 consecutive minutes; [1110.2, 1134, 204]
   b. For other combustion devices, measured concentrations shall be corrected to 3 percent stack-gas oxygen content on a dry basis and be averaged over a period of 15 consecutive minutes; [1146, 1146.1, 204]
   c. For a large NOx source, compliance with a RECLAIM concentration limit shall be measured over a continuous 60 minutes for that source; [2012]
   d. For non-combustion sources, compliance with emission limits shall be determined and averaged over a period of 60 minutes. [204]
   e. For the purpose of determining compliance with Rule 407, carbon monoxide (CO) shall be measured on a dry basis and be averaged over 15 consecutive minutes, and sulfur compound which would exist as liquid or gas at standard conditions shall be calculated as sulfur dioxide (SO2) and be averaged over 15 consecutive minutes; [407]
   f. For the purpose of determining compliance with Rule 409, combustion contaminant emission measurements shall be corrected to 12 percent carbon dioxide (CO2) at standard conditions and averaged over 15 consecutive minutes. [409]
   g. For the purpose of determining compliance with Rule 475, combustion contaminant emission measurements shall be corrected to 3 percent of oxygen (O2) at standard conditions and averaged over 15 consecutive minutes or any other averaging time specified by the Executive Officer. [475]

8. All equipment operating under the RECLAIM program shall comply concurrently with all provisions of AQMD Rules and Regulation, except those listed in Table 1 of Rule 2001 for NOx RECLAIM sources and Table 2 of Rule 2001 for SOx RECLAIM sources. Those provisions listed in Tables 1 or 2 shall not apply to NOx or SOx emissions after the date the facility has demonstrated compliance with all monitoring and reporting requirements of Rules 2011 or 2012, as applicable. Provisions of the listed AQMD rules in Tables 1 or 2 which have initial implementation dates in 1994 shall not apply to a RECLAIM NOx or SOx source, respectively. [2001]

FACILITY PERMIT TO OPERATE
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SECTION E: ADMINISTRATIVE CONDITIONS

9. The operator shall, when a source test is required by AQMD, provide a source test protocol to AQMD no later than 60 days before the proposed test date. The test shall not commence until the protocol is approved by AQMD. The test protocol shall contain the following information: [204, 304]

   a. Brief description of the equipment tested.
   b. Brief process description, including maximum and normal operating temperatures, pressures, through-put, etc.
   c. Operating conditions under which the test will be performed.
   d. Method of measuring operating parameters, such as fuel rate and process weight. Process schematic diagram showing the ports and sampling locations, including the dimensions of the ducts/stacks at the sampling locations, and distances of flow disturbances, (e,g. elbows, tees, fans, dampers) from the sampling locations (upstream and downstream).
   e. Brief description of sampling and analytical methods used to measure each pollutant, temperature, flow rates, and moisture.
   f. Description of calibration and quality assurance procedures.
   g. Determination that the testing laboratory qualifies as an "independent testing laboratory" under Rule 304 (no conflict of interest).

10. The operator shall submit a report no later than 60 days after conducting a source test, unless otherwise required by AQMD Rules or equipment-specific conditions. The report shall contain the following information: [204]

   a. The results of the source test.
   b. Brief description of the equipment tested.
   c. Operating conditions under which the test will be performed.
   d. Method of measuring operating parameters, such as fuel rate and process weight. Process schematic diagram showing the ports and sampling locations, including the dimensions of the ducts/stacks at the sampling locations, and distances of flow disturbances, (e,g. elbows, tees, fans, dampers) from the sampling locations (upstream and downstream).
   e. Field and laboratory data forms, strip charts and analyses.
   f. Calculations for volumetric flow rates, emission rates, control efficiency, and overall control efficiency.

11. The operator shall, when a source test is required, provide and maintain facilities for sampling and testing. These facilities shall comply with the requirements of AQMD Source Test Method 1.1 and 1.2. [217]

FACILITY PERMIT TO OPERATE
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SECTION E: ADMINISTRATIVE CONDITIONS

12. Whenever required to submit a written report, notification or other submittal to the Executive Officer, AQMD, or the District, the operator shall mail or deliver the material to: Deputy Executive Officer, Engineering and Compliance, AQMD, 21865 E. Copley Drive, Diamond Bar, CA 91765-4182. [204]

FACILITY PERMIT TO OPERATE
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SECTION F: RECLAIM MONITORING AND SOURCE TESTING REQUIREMENTS

The Facility shall comply with all applicable monitoring and source testing requirements in Regulation XX. These requirements may include but are not limited to the following:

I. NOx Monitoring Conditions

A. The Operator of a NOx Major Source, as defined in Rule 2012, shall, as applicable:

1. Install, maintain, and operate an AQMD certified direct or time-shared monitoring device or an approved alternative monitoring device for each major NOx source to continuously measure the concentration of NOx emissions and all other applicable variables specified in Rule 2012, Table 2012-1 and Rule 2012, Appendix A, Table 2-A to determine the NOx emissions rate from each source. The time-sharing of CEMS among NOx sources may be allowed by the Executive Officer in accordance with the requirements for time sharing specified in Appendix A. [2012]

2. Install, maintain, and operate a totalizing fuel meter approved by the Executive Officer for each major source. [2012]

3. If the facility is operating existing CEMS and fuel meters, continue to follow recording and reporting procedures required by AQMD Rules and Regulations in effect prior to October 15, 1993 until the CEMS is certified pursuant to Rule 2012. [2012]

4. Use valid data collected by an AQMD certified or provisionally certified CEMS in proper operation that meets all the requirements of Appendix A of Rule 2012, unless final certification of the CEMS is denied, to determine mass emissions for all purposes, including, but not limited to, determining: [2012]

   a. compliance with the annual Allocation;
   b. excess emissions;
   c. the amount of penalties; and
   d. fees.

5. Follow missing data procedures as specified in Rule 2012 Appendix A whenever valid data is not available or collected to determine mass emissions for all purposes, including, but not limited to, determining: [2012]

   a. compliance with the annual Allocation;
   b. excess emissions;
   c. the amount of penalties; and
   d. fees.

FACILITY PERMIT TO OPERATE
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SECTION F: RECLAIM MONITORING AND SOURCE TESTING REQUIREMENTS

B. The Operator of a NOx Large Source, as defined in Rule 2012, shall, as applicable:

Not Applicable

C. The Operator of a NOx Process Unit, as defined in Rule 2012, shall, as applicable:

Not Applicable

II. NOx Source Testing and Tune-up Conditions

1. The operator shall conduct all required NOx source testing in compliance with an AQMD-approved source test protocol. [2012]

2. The operator shall, as applicable, conduct source tests for every large NOx source no later than June 30, 1997 and every 3 years thereafter. The source test shall include the determination of NOx concentration and a relative accuracy audit of the exhaust stack flow determination (e.g. in-stack flow monitor or fuel flow monitor based F-factor calculation). Such source test results shall be submitted per the schedule described by APEP. In lieu of submitting the first source test report, the facility permit holder may submit the results of a source test not more than 3 years old which meets the requirements when conducted. [2012]

3. All NOx large sources and NOx process units shall be tuned-up in accordance with the schedule specified in Rule 2012, Appendix A, Chapter 5, Table 5-B. [2012]

FACILITY PERMIT TO OPERATE
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SECTION G: RECORDKEEPING AND REPORTING REQUIREMENTS FOR RECLAIM SOURCES

The Facility shall comply with all applicable reporting and recordkeeping requirements in Regulation XX. These requirements may include but are not limited to the following:

I. Recordkeeping Requirements for all RECLAIM Sources

1. The operator shall maintain all monitoring data required to be measured or reported pursuant to Rule 2011 and Rule 2012, whichever is applicable. All records shall be made available to AQMD staff upon request and be maintained for at least:

   a. Three years after each APEP report is submitted to AQMD for a facility not subject to Title V, unless a different time period is required in Rule 2011 or Rule 2012 [2011 & 2012]; or
   b. Five years after each APEP report is submitted to AQMD for a facility subject to Title V. [3004(a)(4)(E)]
   c. Notwithstanding the above, all data gathered or computed for intervals of less than 15 minutes shall only be maintained a minimum of 48 hours. [2011 & 2012]

2. The operator shall store on site and make available to the Executive Officer upon request: records used to determine emissions, maintenance records, sources test reports, relative accuracy test audit reports, relative accuracy audit reports and fuel meter calibration records. [2011 & 2012]

II. Reporting Requirements for all RECLAIM Sources

1. The operator shall submit a quarterly certification of emissions including the facility's total NOx or SOx emissions, whichever is applicable, for the quarter within 30 days after the end of the first three quarters and 60 days after the end of the fourth quarter of a compliance year. [2011 & 2012]

NOx Reporting Requirements

A. The Operator of a NOx Major Source, as defined in Rule 2012, shall, as applicable:

1. No later than 12 months after entry into the RECLAIM program or after the initial operation of a new major source, whichever is later, install, maintain, and operate a reporting device to electronically report everyday to the AQMD central station for each major NOx source, the total daily mass emissions of NOx and daily status codes. Such data

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SECTION G: RECORDKEEPING AND REPORTING REQUIREMENTS FOR RECLAIM SOURCES

shall be transmitted by 5:00 p.m. of the following day. If the facility experiences a power, computer, or other system failure that prevents the submittal of the daily report, the Facility Permit holder shall be granted 24 hours extension to submit the report. [2012]

2. Calculate NOx emissions pursuant to missing data procedures set forth in Appendix A, Chapter 2 of Rule 2012 if the Facility Permit holder fails to meet the deadline for submitting the daily report. [2012]

3. Submit an electronic report within 15 days following the end of each month totaling NOX emissions from all major NOx sources during the month. [2012]

4. For those facilities with existing CEMS and fuel meters as of October 15, 1993, continue to follow recording and reporting procedures required by AQMD Rules and Regulations in effect until the CEMS is certified pursuant to Rule 2011 and/or Rule 2012, as applicable. [2012]

B. The Operator of a NOx Large Source, as defined in Rule 2012, shall:

Not Applicable

C. The Operator of a NOx Process Unit, as defined in Rule 2012, shall:

Not Applicable

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SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : INTERNAL COMBUSTION					
System 1 : GAS TURBINES, POWER GENERATION					
GAS TURBINE, NO. 1, NATURAL GAS, GENERAL ELECTRIC , MODEL LM6000 PC SPRINT, SIMPLE CYCLE, WITH WATER INJECTION, 490 MMBTU/HR WITH A/N:	D1	C3	NOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; CO: 6 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996;*RULE 1303(a)(1)-BACT,12-6-2002*] NOX: 17.18 LBS/MMSCF NATURAL GAS (1) [RULE 2012,12-5-2003] ; NOX: 106 PPMV NATURAL GAS (8) [40CFR 60SubpartGG,7-8-2004] NOX: 2.5 PPMV NATURAL GAS (4) [RULE 2005,4-20-2001] ; PM: 0.1 GRAINS/SCF (5A) [RULE 409,8-7-1981] ; PM: 0.01 GRAINS/SCF (5) [RULE 475,10-8-1976 *RULE 475,8-7-1978*] ; PM: 11 LBS/HR (5B) [RULE 475,10-8-1976;*RULE 475,8-7-1978*] ; SO2: (9) [40CFR 72 - Acid Rain Provisions,11-24-1997] SOX: 150 PPMV NATURAL GAS (8) [40CFR 60SubpartGG,7-8-2004] ; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996;*RULE 1303(a)(1)-BACT,12-6-2002*]	A63.1, A63.2, A99.1, A99.2, A99.3, A195.1, A195.2, A327.1, C1.1, C1.2, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, I296.1, K40.1, K67.1

* (1) Denotes RECLAIM emission factor (2) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
(5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS,etc.)
(9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE
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SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : INTERNAL COMBUSTION					
GENERATOR, 49.8 MW					
SELECTIVE CATALYTIC REDUCTION, NO. 1, CORMETECH, 1227 CU.FT.; HEIGHT: 6 FT 6 IN; LENGTH: 2 FT 7.2 IN; WIDTH: 8 FT 9.6 IN A/N:	C2	C3 S4		NH3: 5 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996;*RULE 1303(a)(1)-BACT,12-6-2002*]	A195.3, D12.2, D12.3, D12.4, E179.1, E179.2
CO OXIDATION CATALYST, ENGLEHARD, INC, PLATINUM-ON-ALUMINA, 82 CU FT; HEIGHT: 2 FT 4 IN; WIDTH: 2 FT 0 IN; DEPTH: 0 FT 3 IN A/N:	C3	D1 C2			A195.3, D12.2, D12.3, D12.4, E179.1, E179.2
STACK, NO. 1, DIAMETER: 13 FT; HEIGHT: 80 FT A/N:	S4	C2			
System 2 : GAS TURBINES, POWER GENERATION					
GAS TURBINE, NO.2, NATURAL GAS, GENERAL ELECTRIC, MODEL LM6000 PC SPRINT, SIMPLE CYCLE, WITH WATER INJECTION, 490 MMBTU/HR WITH A/N:	D5	C7	NOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; CO: 6 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996;*RULE 1303(a)(1)-BACT,12-6-2002*] NOX: 17.18 LBS/MMSCF NATURAL GAS (1) [RULE 2012,12-5-2003] ; NOX: 106 PPMV NATURAL GAS (8) [40CFR 60SubpartGG,7-8-2004]	A63.1, A63.2, A99.1, A99.2, A99.3, A195.1, A195.2, A327.1, C1.1, C1.2, D12.1, D29.1, D29.2, D29.3, D82.1, D82.2, E193.1, I296.1, K40.1, K67.1

* (1) Denotes RECLAIM emission factor (2) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
(5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS,etc.)
(9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE
CITY OF RIVERSIDE PUBLIC UTILITIES DEPT

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : INTERNAL COMBUSTION					
GENERATOR, 49.8 MW				NOX: 2.5 PPMV NATURAL GAS (4) [RULE 2005,4-20-2001] ; PM: 0.01 GRAINS/SCF (5A) [RULE 475,10-8-1976;*RULE 475,8-7-1978*] PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981] ; PM: 11 LBS/HR (5B) [RULE 475,10-8-1976;*RULE 475,8-7-1978*] ; SO2: (9) [40CFR 72 - Acid Rain Provisions,11-24-1997] SOX: 150 PPMV NATURAL GAS (8) [40CFR 60SubpartGG,7-8-2004] ; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996;*RULE 1303(a)(1)-BACT,12-6-2002*]	
SELECTIVE CATALYTIC REDUCTION, NO. 2, CORMETECH, 1227 CU.FT.; HEIGHT: 6 FT 6 IN; LENGTH: 2 FT 7.2 IN; WIDTH: 8 FT 9.6 IN A/N:	C6	S8		NH3: 5 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT,5-10-1996;*RULE 1303(a)(1)-BACT,12-6-2002*]	

* (1) Denotes RECLAIM emission factor (2) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
(5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS,etc.)
(9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements
** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE
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SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : INTERNAL COMBUSTION					
CO OXIDATION CATALYST, ENGLEHARD, INC, PLATINUM-ON-ALUMINA, 82 CU FT; HEIGHT: 2 FT 4 IN; WIDTH: 2 FT 0 IN; DEPTH: 0 FT 3 IN A/N:	C7	D5 S8			
STACK, NO. 2, DIAMETER: 13 FT; HEIGHT: 80 FT A/N:	S8	C6 C7			
Process 2 : AMMONIA STORAGE					
STORAGE TANK, FIXED ROOF, AQUEOUS AMMONIA 19 PERCENT, WITH A VAPOR RETURN LINE, 12000 GALS A/N:	D11				C157.1, E144.1, E193.1

* (1) Denotes RECLAIM emission factor (2) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
(5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS,etc.)
(9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE
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SECTION H: DEVICE ID INDEX

The following sub-section provides an index to the devices that make up the facility description sorted by device ID.

FACILITY PERMIT TO OPERATE
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SECTION H: DEVICE ID INDEX

Device Index For Section H			
Device ID	**Section H Page No.**	**Process**	**System**
D1	1	1	1
C2	2	1	1
C3	2	1	1
S4	2	1	1
D5	2	1	2
C6	3	1	2
C7	4	1	2
S8	4	1	2
D11	4	2	0

FACILITY PERMIT TO OPERATE
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SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant 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.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[**RULE 401, 3-2-1984**; RULE 401, 11-9-2001]

DEVICE CONDITIONS

A. Emission Limits

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SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A63.1 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
PM10	Less than or equal to 2330 LBS IN ANY ONE MONTH
CO	Less than or equal to 7263 LBS IN ANY ONE MONTH
SOX	Less than or equal to 212 LBS IN ANY ONE MONTH
VOC	Less than or equal to 887 LBS IN ANY ONE MONTH

The operator shall calculate the emission limit(s) based on the emissions from a single turbine. The operator shall calculate the monthly emission limit(s) by using monthly fuel use data, and the following emission factors. PM: 6.93 lb/MMSCF, SOx: 0.6 lb/mmscf, and VOC 2.601 lb/mmscf. Compliance with the CO emisison limit shall be verified through CEMS data. If CO CEMS data is not available, CO emissions shall be calculated using monthly fuel usage and the factor of 26.08 lb/mmscf during commissioning, and 6.71 lb/mmscf during normal operations.

[**RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1, D5]

FACILITY PERMIT TO OPERATE
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The operator shall comply with the terms and conditions set forth below:

A63.2 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
PM10	Less than or equal to 7806 LBS IN ANY ONE YEAR
CO	Less than or equal to 24339 LBS IN ANY ONE YEAR
SOX	Less than or equal to 710 LBS IN ANY ONE YEAR
VOC	Less than or equal to 2973 LBS IN ANY ONE YEAR

For the purposes of this condition, the limit(s) shall be based on the total combined emissions from the facility. The operator shall calculate the annual emissions by using annual fuel use data, and the following emission factors: PM10 6.93 lb/MMSCF; SOx 0.6 lb/mmcf; and VOC 2.601 lb/mmcf. Compliance with the CO emission limit shall be verified through CEMS data. If CO CEMS data is not available, CO emissions shall be calculated using annual fuel usage and the emission factor of 26.08 lb/mmcf during comissioning, and 6.71 lb/mmscf during normal operation..

For the purposes of this condition, annual shall be defined as the time period commencing and ending with the RECLAIM compliance year for this facility permit.

[**RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1, D5]

A99.1 The 2.5 PPM NOX emission limit(s) shall not apply during turbine commissioning, start-up and shutdown periods. The commissioning period shall not exceed 200 hours per turbine. Start-up time shall not exceed 40 minutes for each start-up. Shutdown periods shall not exceed 10 minutes. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executuve Officer.

[RULE 2005, 4-20-2001]

[Devices subject to this condition : D1, D5]

FACILITY PERMIT TO OPERATE
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The operator shall comply with the terms and conditions set forth below:

A99.2 The 6.0 PPM CO emission limit(s) shall not apply during turbine commissioning, start-up and shutdown periods. The commissioning period shall not exceed 200 hours per turbine. Start-up time shall not exceed 40 minutes for each start-up. Shutdown periods shall not exceed 10 minutes. Written records of commissioning, start-ups, and shutdowns shall be maintained and made available upon request from the Executuve Officer.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1303(b)(1)-Modeling, 5-10-1996**; **RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1, D5]

A99.3 The 17.18 PPM NOX emission limit(s) shall only apply during the interim reporting period to report RECLAIM emissions. The interim reporting period shall not exceed 12 months from entry into RECLAIM.

[**RULE 2012, 12-5-2003**]

[Devices subject to this condition : D1, D5]

A195.1 The 2.5 PPMV NOX emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.

[**RULE 2005, 4-20-2001**]

[Devices subject to this condition : D1, D5]

A195.2 The 6.0 PPMV CO emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1303(b)(1)-Modeling, 5-10-1996**; RULE 1303(b)(1), 12-6-2002; **RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1, D5]

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SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A195.3 The 5.0 PPMV NH3 emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.

The operator shall calculate and continuously record the NH3 slip concentration using the following: NH3 (ppmv) = [a-b*c/1EE+06]*1EE+06/b, where: a=NH3 injection rate (lb/hr)/17(lb/lb-mol), b=dry exhaust gas flow rate (scf/hr)/385.5 scf/lbmol), c=change in measured NOx across the SCR (ppmvd @ 15% O2).

The operator shall install and maintain a NOx analyzer to measure the SCR inlet NOx ppmv accurate to plus/minus 5 percent and calibrated at least once every 12 months.

The operator shall use the method described above or alternate method approved by the Executive Officer.

The ammonia slip calculation procedures described above shall not be used for compliance determination for emission information determination without corroborative data using an approved reference method fo the determination of ammonia.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C2, C3]

A327.1 For the purpose of determining compliance with District Rule 475, combustion contaminant emissions may exceed the concentration limit or the mass emission limit listed, but not both limits at the same time.

[**RULE 475, 10-8-1976**; RULE 475, 8-7-1978]

[Devices subject to this condition : D1, D5]

C. Throughput or Operating Parameter Limits

C1.1 The operator shall limit the fuel usage to no more than 339 cubic feet in any one calendar month.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of a single turbine.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

[**RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1, D5]

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The operator shall comply with the terms and conditions set forth below:

C1.2 The operator shall limit the fuel usage to no more than 1136 cubic feet per year.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of turbines 1 and 2.

The operator shall maintain records in a manner approved by the District to demonstrate compiance with this condition.

[**RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1, D5]

C157.1 The operator shall install and maintain a pressure relief valve set at 25 psig.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D11]

D. Monitoring/Testing Requirements

D12.1 The operator shall install and maintain a(n) flow meter to accurately indicate the fuel usage being supplied to the turbine.

The operator shall also install and maintain a device to continuously record the parameter being measured.

[**RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002; **RULE 2012, 12-5-2003**]

[Devices subject to this condition : D1, D5]

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The operator shall comply with the terms and conditions set forth below:

D12.2 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 2005, 4-20-2001**]

[Devices subject to this condition : C2, C3]

D12.3 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the SCR reactor.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 2005, 4-20-2001**]

[Devices subject to this condition : C2, C3]

D12.4 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 2005, 4-20-2001**]

[Devices subject to this condition : C2, C3]

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The operator shall comply with the terms and conditions set forth below:

D29.1 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NOX emissions	District method 100.1	1 hour	Outlet of the SCR serving this equipment
CO emissions	District method 100.1	1 hour	Outlet of the SCR serving this equipment
SOX emissions	Approved District method	District-approved averaging time	Fuel sample
VOC	Approved District method	1 hour	Outlet of the SCR serving this equipment
PM emissions	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR serving this equipment

The test shall be conducted after AQMD approval of the source test protocol, but no later than 180 days after initial start-up. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (cfh) the flue gas flow rate, and the turbine generating output in MW.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing laboratory, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters, maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressuization of cannisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per EPA Method TO-12 (with pre concentration) and temperature of canisters when extracting samples for analysis is not below 70 deg F

The use of ths alternative method for VOC compliance determination does not mean that it is more accurate than AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior

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SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

approval, except for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test methods, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.

The test shall be conducted when this equipment is operating at loads of 100, 75, and 50 percent of maximum load.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002; **RULE 2005, 4-20-2001**]

[Devices subject to this condition : D1, D5]

D29.2 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR serving this equipment

The test shall be conducted and the results submitted to the District within 45 days after the test date. The AQMD shall be notified of the date and time of the test at least 7 days prior to the test.

The test(s) shall be conducted at least quarterly during the first twelve months of operation and at least annually thereafter. The NOx concentration, as determined by the CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over a 60 minute averaging time period.

The test shall be conducted to demonstrate compliance with the Rule 1303 concentration limit.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D1, D5]

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SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D29.3 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
SOX emissions	Approved District method	District-approved averaging time	Fuel sample
VOC	Approved District method	1 hour	Outlet of the SCR serving this equipment
PM emissions	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment

The test(s) shall be conducted at least once every three years.

The test shall be conducted and the results submitted to the District within 60 days after the test date. The AQMD shall be notified of the date and time of the test at least 7 days prior to the test..

The test shall be conducted in accordance with a District approved source test protocol. The protocol shall be submitted to the District permitting engineer no later than 45 days before the proposed test date and shall be approved by the District before the test commences. the protocol shall include the proposed operating conditions of the turbine during the tests, identity of the testing lab, a statement from the lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted to demonstrate compliance with Rule 1303 concentration emission limits.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (CFH), the flue gas flow rate, and the turbine generating output (MW).

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

For natural gas fired turbines only, VOC compliance shall be determined as follows: a) Stack gas samples are extracted into Summa canisters, maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per EPA Method TO-12 (with pre-concentration) and temperature of canisters when extracting samples for analysis is not below 70 deg F.

The use of this alternative method for VOC camliance determination does not mean that it is more accurate than AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval, except for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test methods, this alternate

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SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

VOC compliance method provides a fair comparison and represents the best samplig and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.

The test shall be conducted when this equipment is operating at 100 percent load.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1, D5]

D82.1 The operator shall install and maintain a CEMS to measure the following parameters:

CO concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CEMS will convert the actual CO concentrations to mass emission rates (lbs/hr) and record the hourly emission rates on a continuous basis.

The CEMS shall be installed and operated in accordance with an approved AQMD Rule 218 CEMS plan application. The operator shall not install the CEMS prior to receiving initial approval from AQMD.

The CEMS shall be installed and operated to measure CO concentration over a 15 minute averaging time period

The CEMS shall be installed and operating no later than 90 days after initial start-up of the turbine

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1, D5]

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The operator shall comply with the terms and conditions set forth below:

D82.2 The operator shall install and maintain a CEMS to measure the following parameters:

NOX concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CEMS shall be installed and operating no later than 12 months after initial start-up of the turbine and shall comply with the requirements of Rule 2012. During the interim period between the initial start-up and the provisional start-up date of the CEMS, the operator shall comply with the monitoriong requirements of Rule 2012(h)(2) and 2012(h)(3). Within two weeks of the turbine start-up date, the operator shall provide written notification to the AQMD of the exact date of start-up

The CEMS shall be installed and operating (for BACT purposes only) no later than 90 days after initial start-up of the turbine

[RULE 2005, 4-20-2001; RULE 2012, 12-5-2003]

[Devices subject to this condition : D1, D5]

E. Equipment Operation/Construction Requirements

E144.1 The operator shall vent this equipment, during filling, only to the vessel from which it is being filled.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D11]

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The operator shall comply with the terms and conditions set forth below:

E179.1 For the purpose of the following condition number(s), continuously record shall be defined as recording at least once every hour and shall be calculated upon the average of the continuous monitoring for that hour.

Condition Number D 12- 2

Condition Number A 195- 3

Condition Number D 12- 3

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C2, C3]

E179.2 For the purpose of the following condition number(s), continuous monitoring shall be defined as measuring at least once every month and shall be calculated based upon the average of the continuous monitoring for that month.

Condition Number D 12- 4

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C2, C3]

E193.1 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

In accordance with all mitigation measures stipulated in the Final California Energy Commission Decision for the 04-SPPE-1 project

[CA PRC CEQA, 11-23-1970]

[Devices subject to this condition : D1, D5, D11]

I. Administrative

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The operator shall comply with the terms and conditions set forth below:

I296.1 This equipment shall not be operated unless the operator demonstrates to the Executive Officer that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the first compliance year of operation, the facility holds sufficient RTCs in an amount equal to the annual emissions increase.

To comply with this condition, the operator shall, prior to the 1st compliance year hold a minimum NOx RTCs of 39,620 lbs/yr. This condition shall apply during the 1st 12 months of operation, commencing with the initial operation of the 1st gas turbine (Devices D1 or D5)

To comply with this condition, shall, prior to the beginning of all years subsequent to the 1st compliance year, hold a minimum of 23,452 lbs of NOx RTCs for operation of all equipment at the facility. In accordance with Rule 2005(f), unused RTCs may be sold only during the reconciliation period for the fourth quarter of the applicable compliance year inclusive of the 1st compliance year.

[RULE 2005, 4-20-2001]

[Devices subject to this condition : D1, D5]

K. Record Keeping/Reporting

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SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

K40.1 The operator shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

Emission data shall be expressed in terms of concentration (ppmv) corrected to 15 percent oxygen (dry basis), mass rate (lbs/hr), and lbs/MM Cubic Feet. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute (DACFM).

All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (CFH), the flue gas temperature, and the generator power output (MW) under which the test was conducted.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002; **RULE 2005, 4-20-2001**]

[Devices subject to this condition : D1, D5]

K67.1 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Natural gas fuel use after CEMS certification

Natural gas fuel use during the commissioning period

Natural gas fuel use after the commissioning period and prior to CEMS certification

[**RULE 2012, 12-5-2003**]

[Devices subject to this condition : D1, D5]

User: monitor
Host: xena.aqmd.gov
Class: xena.aqmd.gov
Job: fp1_139796

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SECTION I: COMPLIANCE PLANS & SCHEDULES

NONE

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SECTION J: AIR TOXICS

NOT APPLICABLE

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SECTION K: TITLE V Administration

GENERAL PROVISIONS

1. This permit may be revised, revoked, reopened and reissued, or terminated for cause, or for failure to comply with regulatory requirements, permit terms, or conditions. [3004(a)(7)(C)]

2. This permit does not convey any property rights of any sort or any exclusive privilege. [3004(a)(7)(E)]

Permit Renewal and Expiration

3. (A) Except for solid waste incineration facilities subject to standards under Section 129(e) of the Clean Air Act, this permit shall expire five years from the date that the initial Title V permit is issued. The operator's right to operate under this permit terminates at midnight on this date, unless the facility is protected by an application shield in accordance with Rule 3002(b), due to the filing of a timely and complete application for a Title V permit renewal, consistent with Rule 3003. [3004(a)(2), 3004(f)]

   (B) A Title V permit for a solid waste incineration facility combusting municipal waste subject to standards under Section 129(e) of the Clean Air Act shall expire 12 years from the date of issuance unless such permit has been renewed pursuant to this regulation. These permits shall be reviewed by the Executive Officer at least every five years from the date of issuance. [3004(f)(2)]

4. To renew this permit, the operator shall submit to the Executive Officer an application for renewal at least 180 days, but not more than 545 days, prior to the expiration date of this permit. [3003(a)(6)]

Duty to Provide Information

5. The applicant for, or holder of, a Title V permit shall furnish, pursuant to Rule 3002(d) and (e), timely information and records to the Executive Officer or designee within a reasonable time as specified in writing by the Executive Officer or designee. [3004(a)(7)(F)]

Payment of Fees

6. The operator shall pay all required fees specified in Regulation III - Fees. [3004(a)(7)(G)]

Reopening for Cause

7. The Executive Officer will reopen and revise this permit if any of the following circumstances occur:

   (A) Additional regulatory requirements become applicable with a remaining permit term of three or more years. Reopening is not required if the effective date of the requirement is later than the expiration date of this permit, unless the permit or any of its terms and conditions has been extended pursuant to paragraph (f)(4) of Rule 3004.

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(B) The Executive Officer or EPA Administrator determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

(C) The Executive Officer or EPA Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements. [3005(g)(1)]

COMPLIANCE PROVISIONS

8. The operator shall comply with all regulatory requirements, and all permit terms and conditions, except:

(A) As provided for by the emergency provisions of condition no. 17 or condition no. 18, or

(B) As provided by an alternative operating condition granted pursuant to a federally approved (SIP-approved) Rule 518.2.

Any non-compliance with any federally enforceable permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or denial of a permit renewal application. Non-compliance may also be grounds for civil or criminal penalties under the California State Health and Safety Code. [3004(a)(7)(A)]

9. The operator shall allow the Executive Officer or authorized representative, upon presentation of appropriate credentials to:

(A) Enter the operator's premises where emission-related activities are conducted, or records are 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 the permit;

(C) Inspect at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(D) Sample or monitor at reasonable times, substances or parameters for the purpose of assuring compliance with the facility permit or regulatory requirements. [3004(a)(10)(B)]

10. All terms and conditions in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the EPA Administrator and citizens under the federal Clean Air Act, unless the term or condition is designated as not federally enforceable. Each day during any portion of which a violation occurs is a separate offense. [3004(g)]

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11. A challenge to any permit condition or requirement raised by EPA, the operator, or any other person, shall not invalidate or otherwise affect the remaining portions of this permit. [3007(b)]

12. The filing of any application for a permit revision, revocation, or termination, or a notification of planned changes or anticipated non-compliance does not stay any permit condition. [3004(a)(7)(D)]

13. It shall not be a defense for a person in an enforcement action, including those listed in Rule 3002(c)(2), that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit, except as provided for in "Emergency Provisions" of this section. [3004(a)(7)(H)]

14. The operator shall not build, erect, install, or use any equipment, the use of which, without resulting in a reduction in the total release of air contaminants to atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Chapter 3 (commencing with Section 41700) of Part 4, of Division 26 of the California Health and Safety Code or of AQMD rules. This rule shall not apply to cases in which the only violation involved is of Section 41700 of the California Health and Safety Code, or Rule 402 of AQMD Rules. [408]

15. Nothing in this permit or in any permit shield can alter or affect:

    (A) Under Section 303 of the federal Clean Air Act, the provisions for emergency orders;

    (B) The liability of the operator for any violation of applicable requirements prior to or at the time of permit issuance;

    (C) The applicable requirements of the Acid Rain Program, Regulation XXXI;

    (D) The ability of EPA to obtain information from the operator pursuant to Section 114 of the federal Clean Air Act;

    (E) The applicability of state or local requirements that are not "applicable requirements", as defined in Rule 3000, at the time of permit issuance but which do apply to the facility, such as toxics requirements unique to the State; and

    (F) The applicability of regulatory requirements with compliance dates after the permit issuance date. [3004(c)(3)]

16. For any portable equipment that requires an AQMD or state permit or registration, excluding a) portable engines, b) military tactical support equipment and c) AQMD-permitted portable equipment that are not a major source, are not located at the facility for more than 12 consecutive months after

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commencing operation, and whose operation does not conflict with the terms or conditions of this Title V permit: 1) the facility operator shall keep a copy of the AQMD or state permit or registration; 2) the equipment operator shall comply with the conditions on the permit or registration and all other regulatory requirements; and 3) the facility operator shall treat the permit or registration as a part of its Title V permit, subject to recordkeeping, reporting and certification requirements. [3004(a)(1)]

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EMERGENCY PROVISIONS

17. An emergency[1] constitutes an affirmative defense to an action brought for non-compliance with a technology-based emission limit only if:

    (A) Properly signed, contemporaneous operating records or other credible evidence demonstrate that:

        (1) An emergency occurred and the operator can identify the cause(s) of the emergency;

        (2) The facility was operated properly (i.e. operated and maintained in accordance with the manufacturer's specifications, and in compliance with all regulatory requirements or a compliance plan), before the emergency occurred;

        (3) The operator took all reasonable steps to minimize levels of emissions that exceeded emissions standard, or other requirements in the permit; and,

        (4) The operator submitted a written notice of the emergency to the AQMD within two working days of the time when the emissions limitations were exceeded due to the emergency. The notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and

    (B) The operator complies with the breakdown provisions of Rule 430 - Breakdown Provisions, or subdivision (i) of Rule 2004 - Requirements, whichever is applicable. [3002(g), 430, 2004(i)]

18. The operator is excused from complying with any regulatory requirement that is suspended by the Executive Officer during a state of emergency or state of war emergency, in accordance with Rule 118 - Emergencies. [118]

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1 "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the operator, including acts of God, which: (A) requires immediate corrective action to restore normal operation; and (B) causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency; and (C) is not caused by improperly designed equipment, lack of preventative maintenance, careless or imporper operation, or operator error.

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RECORDKEEPING PROVISIONS

19. In addition to any other recordkeeping requirements specified elsewhere in this permit, the operator shall keep records of required monitoring information, where applicable, that include:

    (A) The date, place as defined in the Title V permit, and time of sampling or measurements;

    (B) The date(s) analyses were performed;

    (C) The company or entity that performed the analyses;

    (D) The analytical techniques or methods used;

    (E) The results of such analyses; and

    (F) The operating conditions as existing at the time of sampling or measurement. [3004(a)(4)(B)]

20. The operator shall maintain records pursuant to Rule 109 and any applicable material safety data sheet (MSDS) for any equipment claimed to be exempt from a written permit by Rule 219 based on the information in those records. [219(o)]

21. The operator shall keep all records of monitoring data required by this permit or by regulatory requirements for a period of at least five years from the date of the monitoring sample, measurement, report, or application. [3004(a)(4)(E)]

REPORTING PROVISIONS

22. The operator shall comply with the following requirements for prompt reporting of deviations:

    (A) Breakdowns shall be reported as required by Rule 430 - Breakdown Provisions or subdivision (i) of Rule 2004 - Requirements, whichever is applicable.

    (B) Other deviations from permit or applicable rule emission limitations, equipment operating conditions, or work practice standards, determined by observation or by any monitoring or testing required by the permit or applicable rules that result in emissions greater than those allowed by the permit or applicable rules shall be reported within 72 hours (unless a shorter reporting period is specified in an applicable State or Federal Regulation) of discovery of the deviation by contacting AQMD enforcement personnel assigned to this facility or otherwise calling (800) CUT-SMOG.

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(C) A written report of such deviations reported pursuant to (B), and any corrective actions or preventative measures taken, shall be submitted to AQMD, in an AQMD approved format, within 14 days of discovery of the deviation.

(D) All other deviations shall be reported with the monitoring report required by condition no. 23. [3004(a)(5)]

23. Unless more frequent reporting of monitoring results are specified in other permit conditions or in regulatory requirements, the operator shall submit reports of any required monitoring to the AQMD at least twice per year. The report shall include a) a statement whether all monitoring required by the permit was conducted; and b) identification of all instances of deviations from permit or regulatory requirements. A report for the first six calendar months of the year is due by August 31 and a report for the last six calendar months of the year is due by February 28. [3004(a)(4)(F)]

24. The operator shall submit to the Executive Officer and to the Environmental Protection Agency (EPA), an annual compliance certification. For RECLAIM facilities, the certification is due when the Annual Permit Emissions Program (APEP) report is due and shall cover the same reporting period. For other facilities, the certification is due on March 1 for the previous calendar year. The certification need not include the period preceding the date the initial Title V permit was issued. Each compliance certification shall include:

(A) Identification of each permit term or condition that is the basis of the certification;

(B) The compliance status during the reporting period;

(C) Whether compliance was continuous or intermittent;

(D) The method(s) used to determine compliance over the reporting period and currently, and

(E) Any other facts specifically required by the Executive Officer to determine compliance.

The EPA copy of the certification shall be sent to: Director of the Air Division Attn: Air-3 USEPA, Region IX 75 Hawthorne St. San Francisco, CA 94105 [3004(a)(10)(E)]

25. All records, reports, and documents required to be submitted by a Title V operator to AQMD or EPA shall contain a certification of accuracy consistent with Rule 3003(c)(7) by a responsible official (as defined in Rule 3000). [3004(a)(12)]

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PERIODIC MONITORING

26. All periodic monitoring required by this permit pursuant to Rule 3004(a)(4)(c) is based on the requirements and justifications in the AQMD document "Periodic Monitoring Guidelines for Title V Facilities" or in case-by-case determinations documented in the Title V application file. [3004(a)(4)]

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FACILITY RULES

This facility is subject to the following rules and regulations:

With the exception of Rule 402, 473, 477, 1118 and Rules 1401 through 1420, the following rules that are designated as non-federally enforceable are pending EPA approval as part of the state implementation plan. Upon the effective date of that approval, the approved rule(s) will become federally enforceable, and any earlier versions of those rules will no longer be federally enforceable.

RULE SOURCE	Adopted/Amended Date	FEDERAL Enforceability
RULE 1113	11-8-1996	Federally enforceable
RULE 1113	7-9-2004	Non federally enforceable
RULE 1171	11-7-2003	Federally enforceable
RULE 1303(a)(1)-BACT	12-6-2002	Non federally enforceable
RULE 1303(a)(1)-BACT	5-10-1996	Federally enforceable
RULE 1303(b)(1)	12-6-2002	Non federally enforceable
RULE 1303(b)(1)-Modeling	5-10-1996	Federally enforceable
RULE 1303(b)(2)-Offset	12-6-2002	Non federally enforceable
RULE 1303(b)(2)-Offset	5-10-1996	Federally enforceable
RULE 2005	4-20-2001	Federally enforceable
RULE 2012	12-5-2003	Federally enforceable
RULE 3002	11-14-1997	Federally enforceable
RULE 3003	11-14-1997	Federally enforceable
RULE 3003	3-16-2001	Non federally enforceable
RULE 3004	12-12-1997	Federally enforceable
RULE 3004(a)(4)-Periodic Monitoring	12-12-1997	Federally enforceable
RULE 3005	11-14-1997	Federally enforceable
RULE 3005	3-16-2001	Non federally enforceable
RULE 3007	10-8-1993	Federally enforceable
RULE 401	11-9-2001	Non federally enforceable
RULE 401	3-2-1984	Federally enforceable
RULE 402	5-7-1976	Non federally enforceable
RULE 407	4-2-1982	Federally enforceable
RULE 408	5-7-1976	Federally enforceable
RULE 409	8-7-1981	Federally enforceable
RULE 430	7-12-1996	Non federally enforceable
RULE 475	10-8-1976	Federally enforceable
RULE 475	8-7-1978	Non federally enforceable
40CFR 60SubpartGG	7-8-2004	Federally enforceable

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RULE SOURCE	Adopted/Amended Date	FEDERAL Enforceability
RULE 701	6-13-1997	Federally enforceable
40CFR 72 - Acid Rain Provisions	11-24-1997	Federally enforceable
CA PRC CEQA	11-23-1970	Non federally enforceable

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APPENDIX A: NOX AND SOX EMITTING EQUIPMENT EXEMPT FROM WRITTEN PERMIT PURSUANT TO RULE 219

NONE

FACILITY PERMIT TO OPERATE

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APPENDIX B: RULE EMISSION LIMITS [RULE 1113 11-8-1996]

(1) Except as provided in paragraphs (c)(2), (c)(3), and (c)(4) of Rule 1113, the operator shall not supply, sell, offer for sale, apply, or solicit the application of, any architectural coating which, at the time of sale or manufacture, contains more than 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, and less any colorant added to tint bases, or manufacture, blend, or repackage such a coating for use within the District.

(2) Except as provided in paragraphs (c)(3) and (c)(4) of Rule 1113, the operator shall not supply, sell, offer for sale, apply, solicit the application of, manufacture, blend, or repackage, for use within the District, any architectural coating listed in the Table of Standards which contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified.

TABLE OF STANDARDS

VOC LIMITS

Grams of VOC Per Liter of Coating, Less Water And Less Exempt Compounds

COATING	Limit*	Effective Date of Adoption	Effective 1/1/1998	Effective 1/1/1999	Effective 7/1/2001	Effective 1/1/2005	Effective 7/1/2008
Bond Breakers	350						
Clear Wood Finishes							
Varnish	350						
Sanding Sealers	350						
Lacquer	680		550			275	
Concrete-Curing Compounds	350						
Dry-Fog Coatings	400						
Fire-proofing Exterior Coatings	350	450		350			
Fire-Retardant Coatings							
Clear	650						
Pigmented	350						
Flats	250				100		50
Graphic Arts (Sign) Coatings	500						
Industrial Maintenance							

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APPENDIX B: RULE EMISSION LIMITS [RULE 1113 11-8-1996]

Primers and Topcoats							
Alkyds	420						
Catalyzed Epoxy	420						
Bituminous Coatings	420						
Materials							
Inorganic Polymers	420						
Vinyl Chloride Polymers	420						
Chlorinated Rubber	420						
Acrylic Polymers	420						
Urethane Polymers	420						
Silicones	420						
Unique Vehicles	420						
Japans/Faux Finishing	350	700		350			
Coatings							
Magnesite Cement Coatings	600			450			
Mastic Coatings	300						
Metallic Pigmented Coatings	500						
Multi-Color Coatings	420		250				
Pigmented Lacquer	680		550			275	
Pre-Treatment Wash Primers	780						
Primers, Sealers, and Undercoaters	350						
Quick-Dry Enamels	400						
Roof Coatings	300						
Shellac							
Clear	730						
Pigmented	550						
Stains	350						
Swimming Pool Coatings							
Repair	650						
Other	340						
Traffic Coatings	250		150				
Waterproofing Sealers	400						
Wood Preservatives							
Below-Ground	350						
Other	350						

* The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards

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APPENDIX B: RULE EMISSION LIMITS [RULE 1113 11-8-1996]

TABLE OF STANDARDS (cont.)

VOC LIMITS

Grams of VOC Per Liter of Material

COATING	Limit
Low-Solids Coating	120

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APPENDIX B: RULE EMISSION LIMITS [RULE 1113 7-9-2004]

(1) Except as provided in paragraphs (c)(2), (c)(3), (c)(4), and specified coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage any architectural coating for use in the District which, at the time of sale or manufacture, contains more than 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, and less any colorant added to tint bases, and no person shall apply or solicit the application of any architectural coating within the District that exceeds 250 grams of VOC per liter of coating as calculated in this paragraph.

(2) Except as provided in paragraphs (c)(3), (c)(4), and designated coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage, for use within the District, any architectural coating listed in the Table of Standards which contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified, and no person shall apply or solicit the application of any architectural coating within the District that exceeds the VOC limit as specified in this paragraph. No person shall apply or solicit the application within the District of any industrial maintenance coatings for residential use or for use in areas such as office space and meeting rooms of industrial, commercial or institutional facilities not exposed to such extreme environmental conditions described in the definition of industrial maintenance coatings; or of any rust-preventative coating for industrial use, unless such a rust preventative coating complies with the Industrial Maintenance Coating VOC limit specified in the Table of Standards.

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APPENDIX B: RULE EMISSION LIMITS [RULE 1113 7-9-2004]

TABLE OF STANDARDS
VOC LIMITS

Grams of VOC Per Liter of Coating, Less Water and Less Exempt Compounds

COATING	Limit	Effective Date								
	*	1/1/98	1/1/99	7/1/01	1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Bond Breakers	350									
Clear Wood Finishes										
Varnish	350							275		
Sanding Sealers	350							275		
Lacquer	680	550					275			
Clear Brushing Lacquer	680						275			
Concrete-Curing Compounds	350									
Dry-Fog Coatings	400									
Fire-Proofing Exterior Coatings	450		350							
Fire-Retardant Coatings										
Clear	650									
Pigmented	350									
Flats	250			100						50
Floor Coatings	420				100			50		
Graphic Arts (Sign) Coatings	500									
Industrial Maintenance (IM) Coatings	420					250		100		
High Temperature IM Coatings**					420					
Zinc-Rich IM Primers	420				340			100		
Japans/Faux Finishing Coatings	700		350							
Magnesite Cement Coatings	600		450							
Mastic Coatings	300									
Metallic Pigmented Coatings	500									
Multi-Color Coatings	420	250								
Non-Flat Coatings	250				150			50		
Pigmented Lacquer	680	550					275			
Pre-Treatment Wash Primers	780				420					

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APPENDIX B: RULE EMISSION LIMITS [RULE 1113 7-9-2004]

COATING	Limit	Effective Date								
	*	1/1/98	1/1/99	7/1/01	1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Primers, Sealers, and Undercoaters	350				200			100		
Quick-Dry Enamels	400				250			50		
Quick-Dry Primers, Sealers, and Undercoaters	350				200			100		
Recycled Coatings					250					
Roof Coatings	300				250		50			
Roof Coatings, Aluminum	500						100			
Roof Primers, Bituminous	350				350					
Rust Preventative Coatings	420				400			100		
Shellac										
Clear	730									
Pigmented	550									
Specialty Primers	350							100		
Stains	350				250				100	
Stains, Interior	250									
Swimming Pool Coatings										
Repair	650				340					
Other	340									
Traffic Coatings	250	150								
Waterproofing Sealers	400				250			100		
Waterproofing Concrete/Masonry Sealers	400							100		
Wood Preservatives										
Below-Ground	350									
Other	350									

* The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards

** The National VOC Standard at 650 g/l is applicable until 1/1/2003

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APPENDIX B: RULE EMISSION LIMITS [RULE 1113 7-9-2004]

TABLE OF STANDARDS (cont.)
VOC LIMITS

Grams of VOC Per Liter of Material

COATING	Limit
Low-Solids Coating	120

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APPENDIX B: RULE EMISSION LIMITS [RULE 1171 11-7-2003]

(1) Solvent Requirements

A person shall not use a solvent to perform solvent cleaning operations unless the solvent complies with the applicable requirements set forth below:

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS* VOC g/l (lb/gal)	Effective 7/1/2005 VOC g/l (lb/gal)
(A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application		
(i) General	25 (0.21)	
(ii) Electrical Apparatus Components & Electronic Components	500 (4.2)	100 (0.83)
(iii) Medical Devices & Pharmaceuticals	800 (6.7)	
(B) Repair and Maintenance Cleaning		
(i) General	25 (0.21)	
(ii) Electrical Apparatus Components & Electronic Components	900 (7.5)	100 (0.83)
(iii) Medical Devices & Pharmaceuticals		
(A) Tools, Equipment, & Machinery	800 (6.7)	
(B) General Work Surfaces	600 (5.0)	

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APPENDIX B: RULE EMISSION LIMITS [RULE 1171 11-7-2003]

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS* VOC g/l (lb/gal)	Effective 7/1/2005 VOC g/l (lb/gal)
(C) Cleaning of Coatings or Adhesives Application Equipment	550 (4.6)	25 (0.21)
(D) Cleaning of Ink Application Equipment		
(i) General	25 (0.21)	
(ii) Flexographic Printing	25 (0.21)	
(iii) Gravure Printing		
(A) Publication	750 (6.3)	100 (0.83)
(B) Packaging	25 (0.21)	
(iv) Lithographic or Letter Press Printing		
(A) Roller Wash – Step 1	600 (5.0)	100 (0.83)
(B) Roller Wash-Step 2, Blanket Wash, & On-Press Components	800 (6.7)	100 (0.83)
(C) Removable Press Components	25 (0.21)	
(v) Screen Printing	750 (6.3)	100 (0.83)
(vi) Ultraviolet Ink/ Electron Beam Ink Application Equipment (except screen printing)	800 (6.7)	100 (0.83)

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APPENDIX B: RULE EMISSION LIMITS [RULE 1171 11-7-2003]

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS*	Effective 7/1/2005
	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(vii) Specialty Flexographic Printing	600 (5.0)	100 (0.83)
(E) Cleaning of Polyester Resin Application Equipment	25 (0.21)	

* The specified limits remain in effect unless revised limits are listed in subsequent columns.

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APPENDIX B: RULE EMISSION LIMITS [40CFR 72 - Acid Rain Provisions 11-24-1997]

1. A Title V permit revision is not required for emission increases that are authorized by allowances acquired under the Acid Rain Program, provided that the increases do not trigger a Title V permit revision under any other applicable requirement. [70.6 (a)(4)(ii)]

Monitoring Requirements

2. The owners and operators and, to the extent applicable, the designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR Parts 74, 75, and 76. [40 CFR 72.50, 72.31, 72.9(b)(1)]

3. The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the acid rain emissions limitations and emissions reduction requirements for sulfur dioxide (SO_2) under the Acid Rain Program. [40 CFR 72.9(b)(2), 40 CFR 75.2]

4. The requirements of 40 CFR Parts 74 and 75 shall not affect the responsibility of the operator to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements and other provisions of this permit. [40 CFR 72.9(b)(3), 40 CFR 72.5]

Sulfur Dioxide Requirements

5. The owners and operators of each source and each affected unit at the source shall:
   (A) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR Part 73, Section 73.34(C)) not less than the total annual emissions of SO_2 for the previous calendar year from the unit; and, [40 CFR 72.9(c)(i)],

   (B) Comply with the applicable acid rain emissions limitations for SO_2.[40 CFR 72.9(c)(ii)]

6. Each ton of SO_2 emitted in excess of the acid rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 72.9(g)(7)]

7. SO_2 allowances shall be held in, deducted from, or transferred among allowance tracking system accounts in accordance with the Acid Rain Program. [40 CFR 72.9(g)(4)]

FACILITY PERMIT TO OPERATE

CITY OF RIVERSIDE PUBLIC UTILITIES DEPT

APPENDIX B: RULE EMISSION LIMITS [40CFR 72 - Acid Rain Provisions 11-24-1997]

8. A SO_2 allowance shall not be deducted in order to comply with the requirements under paragraph 41(A) of the SO_2 requirements prior to the calendar year for which the allowance was allocated. [40 CFR 72.9(g)(5)]

9. An affected unit shall be subject to the SO_2 requirements under the Acid Rain Program as follows:[40 CFR 72.6(a)]

   (A) Starting January 1, 2000, an affected unit under 40 CFR Part 72, Section 72.6(a)(2); or [40 CFR 72.6(a)(2)]

   (B) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR Part 75, an affected unit under 40 CFR Part 72, Section 72.6(a)(3). [40CFR 72.6(a)(3)]

10. An allowance allocated by the EPA administrator under the Acid Rain Program is a limited authorization to emit SO_2 in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the acid rain permit application, the acid rain permit, or the written exemption under 40 CFR Part 72, Sections 72.7, 72.8, or 72.14, and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR 72.9 (c)(6)]

11. An allowance allocated by the EPA Administrator under the Acid Rain Program does not constitute a property right. [40 CFR 72.9(c)(7)]

Excess Emissions Requirements

12. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77. [40 CFR 72.9(e)]

13. The owners and operators of an affected unit that has excess emissions in any calendar year shall: [40 CFR 72.9(e)(2)]

    (A) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and[40 CFR 72.9(e)(2)(i)]

    (B) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77. [40 CFR 72.9(e)(2)(ii)]

FACILITY PERMIT TO OPERATE

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APPENDIX B: RULE EMISSION LIMITS [40CFR 72 - Acid Rain Provisions 11-24-1997]

Recordkeeping and Reporting Requirements

14. Unless otherwise provided, the owners and operators of the source and each affected unit at the source that are subject to the acid rain provisions under Title IV shall keep on site at the source each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the EPA Administrator or the Executive Officer: [40 CFR 72.9(f)(1)]

    (A) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such five year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative; [40 CFR 72.9(f)(1)(i)]

    (B) All emissions monitoring information, in accordance with 40 CFR Part 75; [40 CFR 72.9(f)(1)(ii)]

    (C) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and, [40 CFR 72.9(f)(1)(iii)]

    (D) Copies of all documents used to complete an acid rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program. [40 CFR 72.9(f)(1)(iv)]

15. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72 Subpart I and 40 CFR Part 75. [40 CFR 72.9(f)(2)]

Liability

16. Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete acid rain permit application, an acid rain permit, or a written exemption under 40 CFR Part 72, Sections 72.7, 72.8, or 72.14, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to Section 113(c) of the Act. [40 CFR 72.9 (g)(1)]

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APPENDIX B: RULE EMISSION LIMITS [40CFR 72 - Acid Rain Provisions 11-24-1997]

17. Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to Section 113(c) of the Act and 18 U.S.C. 1001. [40 CFR 72.9 (g)(2)]

18. No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect. [40 CFR 72.9 (g)(3)]

19. Each affected source and each affected unit shall meet the requirements of the Acid Rain Program. [40 CFR 72.9 (g)(4)]

20. Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source. [40 CFR 72.9 (g)(5)]

21. Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR Part 72, Section 72.44 (Phase II repowering extension plans) and 40 CFR Part 76, Section 76.11 (NOx averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR Part 75, Sections 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative. [40 CFR 72.9 (g)(6)]

22. Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act. [40 CFR 72.9 (g)(7)]

Effect on Other Authorities

23. No provision of the Acid Rain Program, an acid rain permit application, an acid rain permit, or a written exemption under 40 CFR Part 72, Sections 72.7, 72.8, or 72.14 shall be construed as: [40 CFR 72.9 (h)]

FACILITY PERMIT TO OPERATE

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APPENDIX B: RULE EMISSION LIMITS [40CFR 72 - Acid Rain Provisions 11-24-1997]

(A) Except as expressly provided in Title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of Title I of the Act relating to applicable National Ambient Air Quality Standards or state implementation plans; [40 CFR 72.9 (h)(1)]

(B) Limiting the number of allowances a unit can hold; *provided,* that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act; [40 CFR 72.9 (h)(2)]

(C) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law; [40 CFR 72.9 (h)(3)]

(D) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or, [40 CFR 72.9 (h)(4)]

(E) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established. [40 CFR 72.9 (h)(5)]