City of Vernon

LIGHT & POWER DEPARTMENT
Donal O'Callaghan, Director of Light & Power

September 17, 2007

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Mr. Chandrashekhar S. Bhatt
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Dear Mr. Bhatt:

This letter responds to the August 16, 2007 letter from Mr. Mohsen Nazemi of your agency requesting that the City of Vernon provide documentation demonstrating that the proposed Vernon Power Plant ("VPP") will comply with the requirements of South Coast Air Quality Management District ("SCAQMD") Rule 1309.1 as amended on August 3, 2007. Mr. Nazemi's letter indicates that the SCAQMD staff has made a preliminary determination that the VPP is located in an Environmental Justice Area ("EJA"), as defined in Rule 1309.1, which we will assume to be the case for purposes of this response. The letter also correctly points out that the VPP will have an output of greater than 500 megawatts.

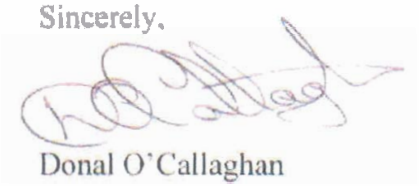
The attached information (Attachments A and B) documents the ability of the VPP to meet the requirements applicable to an electric generating facility of greater than 500 megawatts in an EJA, as set forth in the attachment to Mr. Nazemi's letter.

We would also like to take this opportunity to request that the SCAQMD formally initiate the process for obtaining Governing Board approval of the plan to invest the anticipated mitigation fees from the VPP pursuant to paragraph (d)(13) of the revised rule. While the City would welcome an opportunity to participate in this process, we assume that it will be largely a SCAQMD staff driven process with input from the local community. Please let us know what the next steps in this process will be.

4305 Santa Fe Avenue, Vernon, California 90058 Telephone (323) 583-8811 Fax (323) 826-1425

Please contact Dr. Krishna Nand at (323) 583-8811, Ext 211, if you have any questions or if you need additional information.

Sincerely,



Donal O'Callaghan
Director of Light & Power

Attachments

cc: Mohsen Nazemi, SCAQMD
Roger Johnson, CEC
James Reede, CEC
Mike Carroll, Latham & Watkins LLP
John Carrier, CH2MHill
Krishna Nand
Document Control

Attachment A
Supporting Documentation for Compliance Demonstration with Amended Rule 1309.1 for the Proposed Vernon Power Plant
(located in an Environmental Justice Area and Capacity greater than 500 MW)

TOXIC REQUIREMENTS		
Parameter	**Amended Rule 1309.1 Requirement**	**Value for the Proposed Vernon Power Plant**
Cancer	< 0.5 in-a-million	Maximum cancer risk is estimated at 0.276 in-a-million
Hazard Index	< 0.1	Maximum chronic and acute hazard indices are estimated at 0.0198 and 0.0537, respectively.
Cancer Burden	< 0.05	Cancer burden is 0.007 for a cancer risk of 1-in-10 million (1-in-10-million risk level).
CRITERIA POLLUTANT REQUIREMENTS		
PM10 Emission Controls	NG Only & ≤ 0.035 lb/MW-hr	NG Only & 0.0312 lb/MW-hr (also see Attachment B)
NOx Emission Controls	≤ 0.050 lb/MW-hr	0.0495 (also see Attachment B)
Total Combined Gas Turbines PM10 Hourly Emissions	≤ 30.0 lbs/hr	PM10 hourly emissions from three combustion gas turbines and three duct burners have been estimated at 29.7 lbs/hr.
Total Combined Gas Turbines PM10 24-hr Impact	≤ 2.5 $\mu g/m^3$	Maximum 24-hr impact from three combustion gas turbines and three duct burners has been estimated at 1.96 $\mu g/m^3$.
Total Combined Gas Turbines PM10 Annual Impact	≤ 0.5 $\mu g/m^3$	Maximum annual impact from three combustion gas turbines and three duct burners has been estimated at 0.45 $\mu g/m^3$.
Annual Hours of Operation Limit, if Simple Cycle	≤ 3,000 hrs/yr	Not Applicable. Vernon Power Plant will be a Combined Cycle Facility

Attachment B

Vernon Power Plant (VPP) Compliance Determination
New SCAQMD Rule 1309.1 (August 3, 2007) at 59 deg F

NOTE:

1. PM10 and NOx emission limits in lb/MW-hr are based on gross output (see SCAQMD Final Staff Report, page 20, dated July 2007), Ref.1.
2. Emission limits applicable to the Vernon Power Plant are from the Mohsen Nazemi's letter dated August 16, 2007 to the City of Vernon.

1. Compliance with PM10 Emission Limit of 30 lb/hr (all three CTGs and three Duct Burners)

Duct Burner Firing Condition (Design Basis Duct Burner, 142 MMBtu/hr, HHV), Evaporative Cooler ON: VPP will be in compliance (PASS)

PM10 emission rate/CTG plus Duct Burner	9.9	lb/hr	Ref. 2
PM10 emission rate/3 CTGs and 3 Duct Burners	***29.7***	***lb/hr***	

2. Compliance with PM10 lb/MWhr Emission Limit of 0.035

Duct Burner Firing Condition (Design Basis Duct Burner, 142 MMBtu/hr, HHV), Evaporative Cooler ON: VPP will be in compliance (PASS)

PM10 emission rate/CTG plus Duct Burner	9.9	lb/hr	
PM10 emission rate/3 CTGs and 3 Duct Burners	29.70	lb/hr	
Facility Gross Power Output (includes power from steam turbine)	951	MW/hr	Ref. 2
Emission in lb/MW-hr	***0.0312***	***lb/MW-hr***	

3. Compliance with NOx lb/MWhr Emission Limit of 0.050

Duct Burner Firing Condition (Design Basis Duct Burner, 142 MMBtu/hr, HHV), Evaporative Cooler ON: VPP will be in compliance (PASS)

NOx emission rate/CTG plus Duct Burner	15.70	lb/hr	Ref. 2
NOx emission rate/3 CTGs and 3 Duct Burners	47.10	lb/hr	
Facility Gross Power Output (includes power from steam turbine)	951	MW/hr	Ref. 2
Emission in lb/MW-hr	***0.0495***	***lb/MW-hr***	

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report

Proposed Amended Rule 1309.1 – Priority Reserve; and Proposed Re-Adopted Rule 1315 – Federal New Source Review Tracking System

July 2007

Deputy Executive Officer
Planning, Rule Development and Area Sources
Elaine Chang, DrPH

Assistant Deputy Executive Officer
Planning, Rule Development and Area Sources
Laki Tisopulos, Ph.D., P.E.

Planning & Rules Manager
Planning, Rule Development and Area Sources
Larry M. Bowen, P.E.

Author:	Shams Hasan – Air Quality Specialist
Reviewed By:	Robert R. Pease, P.E. – Program Supervisor William Wong – Senior Deputy District Counsel Barbara Baird – Principal Deputy District Counsel Mohsen Nazemi, P.E. – Assistant Deputy Executive Officer
Contributors:	Mike Mills, P.E. - Senior Air Quality Engineering Manager Mitch Haimov, P.E. – AQ Analysis and Compliance Supervisor John Yee, P.E. – Senior Air Quality Engineer

conditions. The actual operating conditions will then be converted to ISO conditions of 59 degrees Fahrenheit, 60% relative humidity, and 14.7 psia; and using gross MW output.

Comment: Are the PM10 and NOx emissions rates based on net output or gross output?

Response: The PM10 and NOx emissions rates are based on gross output.

Comment: Is the hourly limit on mass emissions of PM10 intended to apply to all equipment, permitted and exempt at the facility, or only to electrical generating units?

Response: For new EGFs with a generation capacity of greater than 500 MW and located in Zone 3 or in an EJ Area, the cumulative hourly limit based on mass emissions of PM10 shall apply only to proposed electrical generating equipment requiring permits at the facility. It shall not apply to existing permitted equipment, Rule 219 exempt equipment, or new non-electric producing equipment.

Comment: Are the limitations on 24-hour and annual modeled PM10 impacts based on emissions from all equipment, permitted and exempt at the facility, or only to electrical generating units?

Response: The cumulative PM10 24-hr and annual impacts as required under Zones 2, 3, and the EJ Areas shall apply only to proposed electrical generating equipment requiring permits at the facility, but they apply to all new or modified equipment. It does not apply to existing permitted equipment, Rule 219 exempt equipment, or new non-electric producing equipment.

Comment: What is the rounding convention that will be applied to the proposed standards? For example, if the standard is 0.050, will a level of 0.0503 be deemed compliant?

Response: ~~There is no rounding convention. For example, for Zone 3, the rule requires the rate of NOx emissions does not exceed 0.050 lbs/MW-hr. Any emission level above this, such as 0.0503, would not be in compliance.~~ Staff has reviewed the rounding convention used in other District rules, other air quality data and standards and the rounding convention used by other public agencies for similar standards. Staff proposes to use that same rounding convention for the purposes of the standards in paragraph (b)(5). The values to be rounded up or down using the digit just beyond the given number of decimal places of the standard according to the standard rounding conventions that values below 5 round down, while those that are equal to or greater than 5 round up. For example, for the standard of 0.050, the value of 0.0504999 or less rounds to 0.050 and would comply.

SIEMENS

September 13, 2007

Mr. Donal O'Callahan
City of Vernon
4305 Sante Fe Avenue
Vernon, CA 90058

Subject: Vernon SCC6-5000F 3x1 Emissions

Dear Donal:

We understand that the City of Vernon would like to have the following data for the proposed Vernon Power Plant to show compliance with the South Coast Air Quality Management District's Amended Rule 1309.1:

1. PM10 emissions from one combustion turbine generator and one duct burner in pounds per hour at full load at 59 deg F, 60% relative humidity, and 14.7 psia pressure.
2. NOx emissions from one combustion turbine generator and one duct burner in pounds per hour at full load at 59 deg F, 60% relative humidity, and 14.7 psia pressure.
3. Gross power generation from the Vernon Power Plant in MW/hr (all three combustion turbine generators and the steam turbine) at full load at 59 deg F, 60% relative humidity, and 14.7 psia pressure.

Siemens has reviewed the Gas Turbine Performance data for the proposed Vernon Power Plant Project and we are pleased to provide the above information in the following Table 1:

Table 1
Vernon Power Plant Gas Turbine Performance Data

Parameter	Siemens SGT6-5000F Gas Turbine Estimated Performance Data
PM10 emissions from one combustion turbine generator and one duct burner at full load at 59 deg F, 60% relative humidity, and 14.7 psia pressure. **Note: Duct burner heat input is 142 MMBtu/hr (HHV)**	9.9 lb/hr
NOx emissions from one combustion turbine generator and one duct burner at full load at 59 deg F, 60% relative humidity, and 14.7 psia pressure. **Note: Duct burner heat input is 142 MMBtu/hr (HHV)**	15.7 lb/hr
Gross power generation from the Vernon Power Plant (all three combustion turbine generators and the steam turbine) at full load at 59 deg F, 60% relative humidity, and 14.7 psia pressure. **Note: Duct burner heat input is 142 MMBtu/hr (HHV)**	951 MW/hr

Best regards,

Jerry Stretch
District Sales Manager

CC: Thomas Karastamatis

Siemens Power Generation, Inc.

4400 Alafaya Trail
Orlando, FL 32826-2399