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

January 25, 2008

Steve Sciortino
Integrated Resources Manager
Canyon Power Plant
201 S. Anaheim Blvd., Suite 802
Anaheim, CA 92805

Subject: Canyon Power Plant, AQMD ID# 153992
3071 E. Miraloma Ave., Anaheim, CA 92806

Dear Mr. Sciortino:

The South Coast Air Quality Management District (AQMD) received permit applications for the above project on December 26, 2007 and determined that the application package is incomplete. The reference application numbers for this project are provided in the table below:

Application	Equipment Description	Completeness Determination
476650	Initial Title V	Deemed Incomplete
476651	GE LM 6000PC Sprint Gas Turbine #1	Deemed Incomplete
476654	SCR/CO Oxidation Catalyst #1	Deemed Incomplete
476656	GE LM 6000PC Sprint Gas Turbine #2	Deemed Incomplete
476657	SCR/CO Oxidation Catalyst #2	Deemed Incomplete
476659	GE LM 6000PC Sprint Gas Turbine #3	Deemed Incomplete
476660	SCR/CO Oxidation Catalyst #3	Deemed Incomplete
476661	GE LM 6000PC Sprint Gas Turbine #4	Deemed Incomplete
476663	SCR/CO Oxidation Catalyst #4	Deemed Incomplete
476665	Ammonia Tank	Deemed Incomplete
476666	Black Start Engine	Deemed Incomplete

Please be aware that, in addition to the information required below, other information will be required during the course of our engineering evaluation.

The following issues have been identified during the completeness review:

1. Appl. No. 476650—Initial Title V
   a. Form 500-A2 - Title V Application Certification requires completion of Item No. 3 For MACT Hammer Certifications in Section II – Responsible Official Certification Statement.

   b. Form 500-A2 requires signature of the responsible official. Examples of persons that can be authorized to be responsible officials are Plant Manager/Superintendent, Operations Manager/Superintendent, and General Manager. Examples of persons that cannot be responsible official are

Manager/Director of Health Safety and Environment, Manager/Director of Environmental Affairs, and Materials Manager. Please confirm if the Integrated Resources Manager can be authorized as a responsible official. Otherwise, please resubmit the Form 500-A2 signed by a correctly designated responsible official.

c. Please provide a proposed schedule for the project, taking into account that expedited permit processing fees were not submitted. Rule 1309.1(c)(6) requires an applicant to agree to a permit condition requiring the new sources to be fully and legally operational at the rated capacity within 3 years of issuance of the Permit to Construct.

d. Please confirm that the proposed wastewater oil-water separator is exempt pursuant to Rule 219(p)(16).

2. Appl. Nos. 476651, 476656, 476659, 476661 -- Gas Turbines

a. The Forms 400-E-12 – Gas Turbine submitted provide inadequate information for us to proceed with the engineering evaluation. Please resubmit the form.

b. Please add the following information to the "Turbine Operating Scenarios" table provided in Appendix B of the application.

i. Maximum fuel consumption,
ii. Maximum gas turbine output, gross and net,
iii. Net engine heat rate, LHV,
iv. Net engine heat rate, HHV,
v. Net engine efficiency (LHV), and
vi. Unabated NOx, CO, and VOC Emission Rates

c. Please provide equipment specifications and diagrams for the turbine.

d. Please provide a copy of the vendor guarantees for emission rates, including for PM_{10}.

e. Please provide the number of startup/shutdown cycles per year per gas turbine, which will be enforced by a permit condition.

f. Pg. 3-6 of the application proposes 4 months for the commissioning period. Pg. 3-7 proposes a maximum of 104 hours of partially abated emissions for each turbine. On pg. 3-8, Table 3-5, Durations and Criteria Pollutant Emissions for Commissioning of a Single CTG presents activities for a combined duration of 104 hours. For one gas turbine, please provide the total commissioning hours, the number of hours with no control, and the number of hours with water injection, all of which will be enforced by a permit condition.

3. A/N 476654, 476657, 476660, 476663 -- SCR and CO Oxidation Catalyst

a. The Forms 400-E-5 - Selective Catalytic Reduction (SCR) System, Oxidation Catalyst, and Ammonia Catalyst list the SCR catalyst system manufacturer as "Cormetech or Equal" and does not specify a model no. The CO oxidation catalyst manufacturer and model no. are not specified. Please provide required information in order for our engineering evaluation to proceed.

b. The Forms 400-E-5 submitted provide inadequate information for us to proceed with the engineering evaluation. Please resubmit the form.

c. Please provide the information requested on the two attachments, entitled "Information Required on SCR Units" and "Information Required on CO Catalyst."

d. For the SCR and CO oxidation catalyst systems, please provide equipment specifications and diagrams.

e. For the SCR and CO oxidation catalyst systems, please provide a copy of the vendor guarantees for emission rates and catalyst life.

4. A/N 476666 -- Black Start Emergency Engine

a. The Form 400-E-13a – Emergency Internal Combustion Engine lists the manufacturer as "Gen Set or equivalent" and does not provide a model no. Please provide required information in order for our engineering evaluation to proceed.

b. The Form 400-E-13a submitted provide inadequate information for us to proceed with the engineering evaluation. Please resubmit the form.

c. Please provide diagrams and equipment specifications, including the emissions data sheet, if different from the equipment specifications for the Gen Set Model C27 DITA provided in Appendix B of the application.

d. The emissions presented are based on 12 hrs/yr, which is the anticipated number of operating hours for testing and maintenance only. The emissions are required to be based on maximum total operating hours, which include testing and maintenance hours. Please provide the maximum total operating hours per year requested, as this limit will be enforced with a permit condition.

5. A/N 476665 – Aqueous Ammonia Storage Tank

a. The Form 400-E-13 – Storage Tank submitted provide inadequate information for us to proceed with the engineering evaluation. Please resubmit the form.

b. Please provide copy of the MSDS for the aqueous ammonia.

c. Please provide the following additional information for the filling losses:
   i. Short process description, e.g., how is the aqueous ammonia received?
   ii. Maximum gallons per shipment.
   iii. Maximum number of shipments per month.
   iv. Filling rate in gpm from the delivery vehicle, or the approximate filling time, e.g., 1 hour.

6. Rule 1309.1 – Priority Reserve

Section 8 – Applicable Regulatory Requirements of the application discussed the requirements of Rule 1309.1 and the project's demonstration of compliance with each requirement. The following additional information is required.

a. Rule 1309.1(b)(5)(A)(iii)(e)

On pg. 6-1 of the application, Footnote No. 1 to Table 6-1 – Summary of Proposed BACT states, in part: "Current BACT for simple cycle combustion turbines is 2.5 ppmvd at 15% O2. The CTG and control equipment vendors for the CPP have indicated that they will meet 2.3 ppmvd at 15% O2, for the LM6000 turbines, as required to achieve a NOx emission rate of 0.08 lb/MW-hour at 59 deg F, 60% relative humidity and 14.7 psia ambient pressure. Compliance with this emission limit at these specific ISO conditions is required for this project to be eligible to purchase Priority Reserve emission credits pursuant to SCAQMD Rule 1309.1."

Please provide guarantees from the CTG and control equipment vendor that the controlled NOx emissions from the turbines at full load will meet the limit of 0.080 lb/MW-hr, corrected to 59 deg F, 60% relative humidity, and 14.7 psia.

b. Rule 1309.1(c)(5)(B)

The applicant for an In-District EGF is required to demonstrate that "renewable/alternative energy (for the purpose of this rule, renewable/alternative energy is hydropower, wind and wave power, solar and geothermal energy, and fossil fuel-based energy [provided the emissions are no more than those from a fuel cell]) in lieu of natural gas fired EGF is not a viable option for the power to be generated at that site."

Based on the legislative history, the AQMD has interpreted this provision to require a demonstration for 10% of the total capacity of the proposed project. Please provide such a demonstration.

c. Rule 1309.1(d)(14)

This provision states, part: "The Executive Officer shall not authorize the release of any Priority Reserve credits for an In-District EGF, unless the EGF seeking Priority Reserve credits has ... entered into a long-term contract with the Southern California Edison Company, or the San Diego Gas and Electric Company, or the State of California to provide electricity in Southern California; and complied with all applicable provisions of this rule. However, a municipal-owned EGF need not enter into a long-term contract, provided such EGF is designed and constructed to not exceed its native demand load based upon future year projections to 2016 or earlier. A municipal-owned EGF obtaining Priority Reserve credits to exclusively serve its native load may not sell electricity to the state grid unless it is directed to do so under a direct order from Cal-ISO or under a state of emergency declared by the State of California or its agencies including Cal-ISO."

Please discuss the proposed facility's plans to comply with this provision.

7. Offsets

The application indicates that the facility intends to acquire offsets from the AQMD's priority reserve. Please be aware, that as a prerequisite to accessing the priority reserve, the facility shall conduct due diligence efforts to secure available ERCs from the open market.

For SOx, PM10, and VOC emissions, the facility is required to acquire sufficient offset credits, unless exempt, before a Permit to Construct is issued. For NOx emissions, the application indicates the facility intends to operate under the NOx RECLAIM program in lieu of providing NOx ERCs. To opt into the RECLAIM program prior to the annual emissions reporting of four or more tons per year of NOx emissions, please submit a letter to me, with a copy to Sr. Enforcement Manager Danny Luong, to request the opt-in. Under the RECLAIM program, the facility is required to demonstrate that it holds sufficient NOx RECLAIM credits before the project commences any operation, including testing.

The following table shows a preliminary estimate of emissions from the project, taken from pg. 7-2 of the application, that requires offset (note that when ERCs or Priority Reserve credits are used as the offset source the estimated emissions will need to include a 1.2 offset factor).

Pollutant	Offset Amount	Source
NOx	21,386 lbs/yr	RTCs (1:1)
VOC	0 lbs/day	14 lbs/day, exempt from offsets per Rule 1304(d)(1)(A).
PM_{10}	136 lbs/day	Priority Reserve per Rule 1309.1 or ERCs (1.2:1)
SOx	0 lbs/day	16 lbs/day, exempt from offsets per Rule 1304(d)(1)(A).

8. Permit Fees
Please provide the Rule 301 equipment category and permit processing fee for each application.

The CEC has requested a determination of completeness by February 13, 2008. In this regard, please submit the information requested in this letter no later than February 8, 2008. If you have any questions regarding your permit applications please contact Ms. Vicky Lee at (909) 396-2284 or vlee1@aqmd.gov.

Sincerely,

Michael D. Mills

Michael D. Mills, P.E
Senior Manager
General Commercial & Energy Team
Engineering & Compliance

MM:RGC:VL

Attachments
Cc: Mohsen Nazemi
Rob Castro (via e-mail only)
John Yee (via e-mail only)
Che McFarlin, CEC
Joe Loyer, CEC
John Lague, URS

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

INFORMATION REQUIRED ON SCR UNITS

1. Catalyst manufacturer
2. Catalyst & Heat Recovery Steam Generator (HRSG) drawings include catalyst dimensions
3. Ammonia grid details
4. Ammonia injection rate
5. Ammonia emission rate
6. Pressure drop across SCR unit including injection grid
7. Controls for ammonia injection
8. Type of catalyst
9. Catalyst volume
10. Space velocity (gas flow rate/catalyst volume)
11. Area velocity (gas flow rate/wetted catalyst surface area)
12. Manufacturer's guarantee for efficiency & catalyst life
13. NO_x concentration in and out of SCR unit
14. SCR unit total cost
15. Catalyst replacement cost
16. Percent decrease in prime mover output
17. Percent increase in HRSG output
18. SO_2 oxidation rate/SO_3 emissions
19. Stack temperature after HRSG
20. HRSG and turbine modifications
21. Temperature at which ammonia injection will begin

INFORMATION REQUIRED ON CO CATALYST

1. Type of Catalyst
2. Catalyst Volume
3. Space Velocity
4. Linear Velocity
5. Pressure Drop Across Catalyst
6. Manufacturer's Guarantee for Efficiency and Catalyst Life
7. Operating Temperature Range of Catalyst
8. Effect of Temperature on Efficiency
9. CO Conversion Efficiency
10. Unsaturated Hydrocarbon Conversion Efficiency
11. Saturated (Non-Methane) Hydrocarbon Conversion Efficiency
12. Methane Conversion Efficiency
13. CO Catalyst Total Cost
14. Catalyst Replacement Cost
15. Catalyst and Heat Recovery Steam Generator (HRSG) Drawings Including Catalyst Dimensions
16. Catalyst Manufacturer
17. CO and HC Concentration In and Out of CO Catalyst
18. Catalyst Depth
19. Catalyst Cell Density (Cells Per Square Inch)

9/18/84