CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

November 6, 2008

Mr. John Annicchiarico
Senior Air Pollution Control Engineer
San Diego Air Pollution Control District
10124 Old Grove Road
San Diego, California 92131

Re: Comments on Preliminary Determination of Compliance (PDOC)
Orange Grove Project (08-AFC-4)

Dear Mr. Annicchiarico,

Energy Commission staff has reviewed the San Diego Air Pollution Central District PDOC and has the following comments for your consideration for inclusion in the Final Determination of Compliance (FDOC).

Comments on PDOC Conditions

Conditions 16 and 17 – Startup and Shutdown Emission Limits
The emission limits provided in these two conditions are actually emission rates in lbs per event, not hourly emission limits as they are portrayed. These two conditions should be revised to either note that they are regulating the emission rate (in lbs/event), or as we would recommend, replace these emission limits with the total hourly emissions during a startup, shutdown and startup/shutdown hour (normal emissions plus applicable durations of the startup and shutdown emission rates). These revised maximum hourly emission limits during startup, shutdown, or startup/shutdown[1] values as stipulated to by the applicant are as follows:

Operating Condition	NOx	CO	VOC
Startup	15.4 lbs/hr	15.1 lbs/hr	2.6 lbs/hr
Shutdown	5.9 lbs/hr	9.0 lbs/hr	1.7 lbs/hr
Startup/Shutdown	16.1 lbs/hr	16.8 lbs/hr	2.8 lbs/hr

Condition 22 – Daily Emission Limits
We believe that a proper accounting of the daily NOx and CO emissions would be 141.3 lbs/day and 182.6 lbs/day, respectively. This assumes that, as is currently the case, the District does not intend to allow the applicant's requested maintenance emissions limit, which would increase these daily emission limits to the higher values specified in the AFC Table 6.1-14. Also see comment on Condition 37.

[1] Startup/Shutdown refers to an hour that has both a startup event and a shutdown event.

Conditions 20 and 24 - Ongoing Emission Compliance

We recommend that the assumed use of any parametric calculations, fuel based or based on Continuous Emission Monitoring System (CEMS) values for CO, for ongoing VOC and/or PM10 emission estimates after the initial source test or between any subsequent source tests, should be specifically identified in Conditions 20 and 24, respectively. For an example of such a condition please see the Chula Vista Energy Upgrade Project's FDOC Condition 19, provided below.

> Emissions of VOCs, calculated as methane, from the turbine exhaust stack shall not exceed 2.0 parts per million volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over each one-hour period. Compliance with this limit shall be demonstrated continuously based on CEMS data and based upon source testing calculated as the average of three subtests. At the time of the initial compliance test, a District-approved CO/VOC surrogate relationship shall be established. The CO/VOC surrogate relationship shall be verified and/or modified, if necessary, based on annual source testing. This limit shall not apply during the commissioning period or during start-up and shut-down conditions.

Condition 23 – Annual Emission Limits

The annual emission limits, unlike the short-term hourly and daily emission limits, should include the initial commissioning emissions. The applicant has not requested a higher annual emission rate for the initial commissioning year. Therefore, we suggest the following revision to the first sentence of the condition:

> "The emission from each turbine shall not exceed the following emission limits~~, except during the initial commissioning period,~~ as determined by..."

Condition 37 – Turbine Tuning

This condition is inconsistent with the emission limits, as no emission limit has been allowed for tuning events. If this condition is maintained then hourly limits should be established and the daily and annual emission limits should be changed.

Condition 43 - Source Testing Frequency

The frequency of source testing after the initial source test should be noted clearly in the conditions. Even if there is no specific requirement after the initial test, we would recommend the addition of the following: "After the initial source test, additional source testing will be conducted annually or at the discretion of the APCO." Condition 43 as it is currently written provides no schedule or frequency for the source testing required in the condition.

Conditions 38, 39, 49, 50, 69 and 70 - Duplicate/Redundant Conditions

It is unclear if Conditions 41 and 48 both require a protocol for turbine operating characteristics or if Condition 48 is requiring a protocol for the CEMS.

Additionally, it is not clear how Condition 48 differs from Conditions 49 and 50. For clarity we suggest creating only one condition that covers the requirement for a monitoring protocol for turbine operating characteristics and only one condition that covers the requirement for a CEMS protocol.

Conditions 38, 39, 69, and 70 appear to have redundant requirements for source test protocol submittal. We suggest consolidating this requirement into one condition.

Conditions 63 and 64 – NOx and CO emission limits during commissioning
These Conditions are inconsistent with Condition 67, and the applicant's stipulation that only one turbine would be commissioned at a time. The emission rate should specify that the emission limits for a turbine should not exceed 50 lbs and 43.9 lbs for NOx and CO respectively. Additionally, these conditions are redundant with conditions 26 and 27.

Emergency Fire Pump Condition 7
This condition restricts operation of the fire pump engine in response to notification of an impending rotating outage. We are not sure why a fire pump engine would need to start operation due to an impending rotating outage. Additionally, we are not sure why the fire pump engine could not start without grid power (battery starter) or start with power supplied by the black start engine if a fire emergency were to occur. It appears that this condition would be more applicable to the black start engine than the fire pump engine. We would like to understand why this condition is needed for the fire pump engine, and why it is not needed for the black start engine.

Emergency Fire Pump Condition 8
The indented list lettering should be corrected from D, E, F, to A, B, C.

Comments on PDOC Engineering Evaluation

PM10 Hourly Emission Limit
We are not sure why the District unilaterally revised the applicant's proposed turbine PM10 emission limit of 2.7 lbs/hr to 3.0 lbs/hour, as the PDOC does not discuss the matter. We would like clarification as to why the revision was made. However, we understand that the applicant has agreed to this revision, so we have already accommodated this change in our Staff Assessment.

Page 8 - Table 1c – Daily emissions
We believe that the figures shown for NOx and CO should be revised for the steady state condition. We believe that the steady state emission rates for these two pollutants should be corrected for NOx from 88.7 to 92.9 lbs (21.6 hours times 4.3 lbs/hour) and for CO from 129.6 to 132.2 lbs (21.6 hours times 6.12 lbs/hour). This comment also relates to the daily emission limits given in Condition 22, provided in an earlier comment.

Page 10 – Cooling Tower Drift Emissions Equation
This equation is missing the drift fraction of the drift eliminator proposed by the applicant. The complete equation would be as follows:

=(4,594/1E6)x(8,500 gal/min)x(60 min/hour)x(8.34 lb/gal)x(0.00001 drift fraction)

Page 11 – Table 2c
The on-site component of the paved road emissions appear to be overstated as the on-site round trip length will likely be less than one-half mile rather than the two miles assumed.

Page 14 – Table 4a
As identified in condition 67, only one turbine shall be commissioning at a time, so the combined turbine emission rate column presented in this table should be deleted.

Page 15 – Two Table 4d's
The first table on page 15 should be correctly named as Table 4c.

Page 15 – Table 4c – Daily Commissioning Emissions
This table does not correctly represent the applicant's stipulation to only run uncontrolled commissioning activities from 7 am to 7 pm. This stipulation has been formalized in a staff recommended condition of certification. Therefore, the daily emissions shown in this table for "Synchronization – Uncontrolled" should be halved to account for a maximum of only 12 hours per day of commissioning activities.

Staff Assessment Workshop

The District may be requested to attend the Staff Assessment workshop, depending on the comments received by intervenors and the public. Energy Commission staff will provide District staff the time and exact location of the workshop after it has been determined and make a specific request for attendance if considered necessary.

If you have any questions, please contact Keith Golden of my staff at (916) 653-1643. Thank you for the opportunity to comment on the Orange Grove Project Preliminary Determination of Compliance.

Sincerely,

DALE EDWARDS, Manager
Environmental Protection Office
Siting, Transmission and Environmental Protection Division

cc: Docket